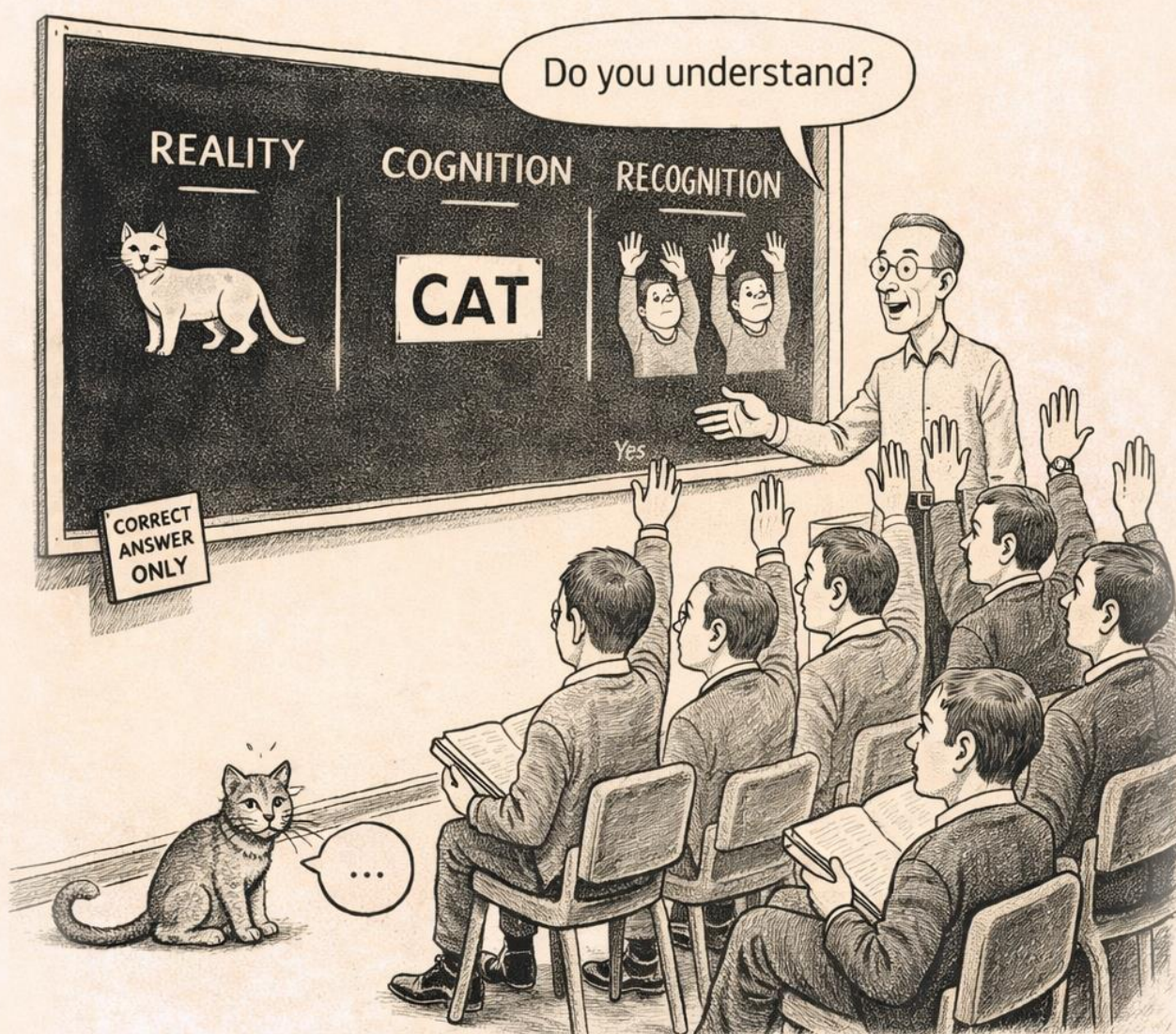


# COGNITION AND RECOGNITION

THE MISCOMMUNICATION TRILOGY "The Conspiracy of Speech, Vol I."



extended version

by **Peter Ayolov**

SAMIZDAT 2026

**THE MISCOMMUNICATION TRILOGY**  
**“The Conspiracy of Speech, Vol. I.”**  
**Part 13**  
**(Extended version\*)**

**COGNITION AND RECOGNITION**

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**2026**

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## **Introduction: The Fractured Mirror: Cognition, Language, and the Illusion of Understanding**

This section of THE MISCOMMUNICATION TRILOGY, *The Conspiracy of Speech*, Vol. I, Part 13 Cognition and Recognition, begins with a fundamental reversal of a deeply rooted assumption: that language is the origin of thought. What emerges from the investigations gathered here is a different hierarchy altogether. Thought does not begin in words, nor does it depend on them for its existence. Instead, cognition arises within perceptual structures—images, spatial relations, forces, and embodied interactions—while language enters later as a secondary, imperfect instrument that attempts to stabilize what is already in motion.

The chapters that follow confront the long-standing belief that to think is to speak internally. From classical philosophy to modern linguistics, the notion that language constitutes the medium of thought has shaped entire intellectual traditions. Yet, as the evidence accumulates—from animal cognition to neuropsychology, from cognitive linguistics to the study of inner speech—this assumption begins to fracture. Non-linguistic creatures solve problems, anticipate outcomes, and navigate complex environments without recourse to words. Even within human cognition, the most immediate operations of thought unfold outside language, in domains that are visual, spatial, and dynamic rather than verbal and sequential. Language, therefore, must be redefined. It is not the substance of thought but a tool that interacts with it. Its role is auxiliary, not foundational. Words provide labels, anchors, and points of reference that stabilize otherwise fluid perceptual experiences. They carve distinctions where perception offers continua, impose boundaries where experience remains ambiguous, and allow for the preservation and communication of conceptual structures across individuals and time. Yet this stabilizing function comes at a cost. In fixing meaning, language also restricts it. In clarifying, it simplifies. In transmitting, it transforms. A central tension emerges from this dual role. On the one hand, language enables abstraction, coordination, and shared understanding. On the other, it introduces distortion through its very structure. The linearity of language forces multidimensional experiences into sequences. Simultaneous relations must be unfolded step by step; spatial wholes must be decomposed into ordered fragments. What is grasped intuitively as a field of relations is reconstructed as a chain of propositions. In this translation, something essential is always lost.

This loss is not incidental but structural. Language does not fail occasionally; it fails systematically, because its form cannot fully accommodate the richness of the perceptual world it seeks to represent. The more complex the relation, the greater the strain. Writers, thinkers, and speakers compensate through metaphor, narrative, and rhetorical construction, but these are not solutions so much as adaptations—ways of navigating the limitations of a medium that was never designed to carry the full weight of thought. Metaphor, in particular, reveals the deep entanglement between language and perception. Far from being decorative, metaphors constitute the core of conceptualization. Abstract domains are understood through mappings grounded in bodily experience: time becomes space, causation becomes force, emotion becomes temperature. These mappings allow thought to extend beyond immediate perception, but they also constrain it. Each metaphor highlights certain aspects of a phenomenon while obscuring others, creating structured ways of seeing that can both illuminate and mislead. The instability of language becomes even more apparent when considered across contexts and cultures. Words do not carry fixed meanings; they shift depending on usage, situation, and historical change. Categories exist without names, and names persist without stable categories. The absence of a word does not imply the absence of a concept, just as the presence of a word does not guarantee conceptual clarity. Meaning is not contained within language but emerges through the interaction between linguistic signs and perceptual, cognitive, and social processes.

This perspective challenges strong forms of linguistic determinism, which claim that language shapes or confines thought. While language undoubtedly influences cognition, it does not imprison it. The human mind operates across multiple media, and language is only one among them. Visual reasoning, motor schemas, emotional patterns, and social interactions all contribute to thought in ways that cannot be reduced to verbal structures. To elevate language to the status of a total medium is to mistake one tool for the entire workshop. At the same time, language exerts a conservative force on cognition. By attaching fixed labels to fluid experiences, it encourages stereotyped thinking. Concepts become rigid where they might otherwise remain flexible. Ambiguity is suppressed in favor of clarity, even when such clarity distorts the underlying reality. This tendency is visible in everyday misunderstandings, where words evoke inappropriate associations, and in broader cultural patterns, where linguistic frameworks reinforce particular ways of interpreting the world. The study of inner speech further complicates the picture. While individuals often experience thinking as verbal, this experience represents only one layer of cognitive activity. Inner speech itself is not a simple internalization of external language but a transformed, condensed, and highly efficient system. It operates through abbreviated syntax, context-dependent meanings, and rapid associative processes. Moreover, inner speech coexists with non-verbal forms of thought, interacting with them rather than replacing them.

In bilingual contexts, this interaction becomes even more dynamic. The relationship between first and second languages reveals that thought is not tied to a single linguistic system but can shift, adapt, and integrate multiple codes. The development of inner speech in a second language illustrates how language can become a tool for thought without being its origin. Even here, the underlying cognitive structures remain grounded in perception and experience, with language serving as a flexible interface rather than a determining force. Neuroscientific findings reinforce this distributed view of cognition. The brain does not allocate thought to a single linguistic center but engages multiple regions, including those responsible for spatial processing, emotion, and integration. The right hemisphere, in particular, plays a crucial role in contextualizing language, maintaining coherence, and interpreting complex narratives. This suggests that meaning arises not from isolated linguistic units but from the integration of diverse cognitive processes. What begins to emerge is a layered model of cognition. At its base lie perceptual structures—dynamic, multidimensional, and simultaneous. Above them operates language, imposing sequence, stability, and communicability. Between and across these layers, processes of interpretation, metaphor, and reconstruction continually reshape meaning. Understanding is not the direct transmission of content but the result of this ongoing interplay.

This introduction sets the stage for a re-evaluation of cognition and recognition as fundamentally reconstructive acts. To recognize is not merely to identify but to interpret, to align perception with conceptual structures that are themselves shaped by language. Yet because these structures are partial and shifting, recognition is never complete. It is always provisional, always open to revision. The consequence is both unsettling and illuminating. If thought exceeds language, and language distorts what it carries, then perfect understanding is unattainable. Communication becomes an approximation rather than a transfer, a negotiation rather than a delivery. Miscommunication is not a deviation from the norm but its defining condition. It is within this tension—between the richness of perception and the constraints of language—that the inquiry of this part unfolds. Cognition and recognition are not stable foundations but dynamic processes, shaped by tools that both enable and limit them. To examine them is to confront the fragile architecture of understanding itself, and to recognize that what we take for clarity may be nothing more than a carefully maintained illusion.



## 1. THINKING

### *The Architecture of Thought: Between Silent Process and Conceptual World*

In the encyclopedic account of thought presented in *Encyclopedia of Philosophy*, thinking emerges first as a peculiar activity defined not by what it touches, but by what it escapes: the immediacy of the senses. Thought, in its most familiar form, unfolds without the prompting of sight, sound, or touch, as if the mind had learned to generate its own interior climate. To judge, to reason, to form concepts, to solve problems, or to deliberate—these are not reactions to the world but constructions within it, movements that occur in a space detached from direct perception. Yet even this distinction proves unstable, for when thinking is expanded to its broadest sense, it absorbs everything: perception, memory, imagination, and even those silent operations that occur beneath awareness. Thought then ceases to be a category and becomes a total condition, a name for the entire life of the mind. At the same time, it carries a second meaning, referring not to the activity itself but to its residue—the structured systems of ideas, beliefs, and conceptual arrangements that persist after the act has passed. Thinking is thus both movement and sediment, both process and product.

Philosophy has long struggled to determine what precisely occurs in this interior domain. For Plato, thinking is a form of vision directed not outward but upward, toward immutable forms that exist beyond the flux of sensory experience. To think is to discern these pure structures and distinguish them from their imperfect reflections in the material world. In contrast, Aristotle relocates thought within the dynamics of experience itself: the mind does not ascend to a separate realm but extracts universals from what is given, internalizing the essence of things through abstraction. Between these positions, conceptualism reframes the issue, suggesting that thinking operates not with essences but with concepts—mental constructs that stand in for the world rather than mirror its hidden structure. Each of these traditions attempts to stabilize thought by assigning it a specific object, yet none fully resolves its ambiguity, for thinking continually oscillates between what is given and what is constructed. Modern theories deepen this ambiguity by shifting attention from what thought grasps to how it proceeds. Inner speech accounts describe thinking as a silent conversation, a continuous internal dialogue conducted in the familiar rhythms of natural language. In this view, the mind speaks even when the body is silent, and thought becomes indistinguishable from muted articulation. Opposing this, the hypothesis of a language of thought posits a more abstract medium—an internal system often called *Mentalese*—whose structure underlies all linguistic expression without belonging to any particular spoken tongue. Thought here is not speech but code, composed of elemental representations combined into complex forms. Other approaches abandon linguistic metaphors altogether. Associationist theories describe thought as a chain of ideas linked by habitual connections, where one image calls forth another according to principles of contiguity and resemblance. Behaviorist accounts reduce thinking to the level of disposition, interpreting it not as an inner event but as a pattern of potential actions shaped by external stimuli. More recently, computational perspectives recast thinking as information processing, aligning the mind with systems that store, transmit, and transform data. Each framework captures a fragment of thinking's nature, yet none exhausts it, suggesting that thought resists any single model precisely because it exceeds the boundaries of each.

Within this shifting landscape, different forms of thinking can be distinguished according to their function. Judgment affirms or denies, establishing a stance toward what is considered. Reasoning extends this stance, drawing conclusions from premises and weaving isolated insights into coherent structures. Problem solving introduces resistance into the process, confronting obstacles

that demand resolution, while deliberation transforms thought into decision, weighing alternatives and selecting among them. Memory and imagination further complicate the picture, both presenting internal representations that detach from immediate reality: one seeks fidelity to what has been, the other invents what has never occurred. Beneath all these operations lies unconscious thought, a domain where solutions emerge without deliberate effort, revealing that thinking is not confined to awareness but continues in hidden forms. The mind, in this sense, is not a unified agent but a layered system in which visible and invisible processes intersect. The study of thought therefore disperses across disciplines, each approaching it from a different angle. Phenomenology examines how thinking is experienced, probing its texture and questioning its separation from perception. Metaphysics situates thought within the broader structure of reality, asking how an immaterial activity can exist in a material world. Cognitive psychology treats thinking as the manipulation of information, mapping its operations through experimental methods, while developmental psychology traces its emergence and transformation across the lifespan. Psychoanalysis turns inward to the unconscious, revealing how hidden desires and conflicts shape what appears as rational thought. Beyond these, linguistics, neuroscience, artificial intelligence, biology, and sociology all contribute to the attempt to understand thinking, each revealing that it cannot be confined to a single domain but must be approached as a phenomenon that crosses boundaries.

Certain conceptual frameworks attempt to impose order on this complexity. The so-called laws of thought—identity, non-contradiction, and excluded middle—define the logical conditions under which thinking maintains coherence, establishing the minimal structure required for intelligibility. Counterfactual thinking extends thought into the realm of the possible, imagining alternatives to reality in order to test hypotheses or evaluate outcomes. Critical thinking introduces a normative dimension, emphasizing reflection, evaluation, and the disciplined assessment of reasons. Positive thinking, by contrast, redirects attention toward affect, privileging optimism and the selective emphasis on favorable aspects of experience. These variations reveal that thinking is not only descriptive but also prescriptive, shaped by ideals about how it ought to proceed. Even at the level of definition, thought resists closure. In one sense, it refers to conscious processes that operate independently of sensory input, encompassing activities such as evaluating propositions or considering ideas. In another, narrower sense, it is restricted to abstract, conceptual operations like inference and deliberation. In its broadest usage, it expands to include all mental processes, collapsing into the notion of the mind itself, as in the tradition inaugurated by René Descartes, where the mind is defined as a thinking thing. Yet this expansion risks dissolving the distinction between thought and other mental phenomena, raising the question of whether thinking must be tied to intelligent action in order to retain its meaning. The frequent opposition between thinking and feeling further complicates matters, assigning rationality to the former and emotional engagement to the latter, as if the mind could be divided into separate domains.

Finally, the term extends beyond activity to encompass its outcomes: the beliefs, systems of ideas, and shared conceptual frameworks that structure both individual and collective life. Thought becomes something that can be possessed, transmitted, and institutionalized, no longer an event but a configuration. Its linguistic origin reflects this duality, deriving from Old English *þoht* or *geþoht*, rooted in *þencan*, meaning to conceive or consider. The history of the word thus mirrors the history of the concept: an attempt to name an activity that is at once internal and expansive, fleeting and enduring, singular and shared. Thought remains the most immediate and the most elusive of human capacities, defining the mind while continually escaping definition.

### ***Cartographies of Thought: Competing Maps of the Invisible Process***

In the analytical overview of thinking presented in *Encyclopedia of Philosophy*, theories of thought appear not as mutually exclusive doctrines but as partial cartographies of an elusive terrain, each tracing certain contours while leaving others obscured. Thinking resists singular definition precisely because it manifests across different dimensions—spiritual, conceptual, linguistic, behavioral, and computational—allowing distinct theories to coexist, overlap, and occasionally converge without fully dissolving their tensions. What emerges is not a unified account but a layered field in which each perspective reveals both an insight and a limitation.

Within this field, the Platonic vision situates thinking beyond the immediacy of the sensory world, transforming it into an activity of discernment directed toward immutable forms. For Plato, thought is not merely internal processing but a mode of access to a higher order of reality, where universals such as beauty or goodness exist independently of their imperfect manifestations. Thinking becomes a silent dialogue of the soul with itself, an effort to distinguish the pure from the imitative. Yet this elevation of thought introduces a paradox: if forms exist in a separate realm, how can the mind reach them? The doctrine of recollection attempts to resolve this by positing that knowledge is remembered rather than acquired, but this solution shifts the burden to an unprovable origin, leaving the mechanism of access unresolved. In contrast, the Aristotelian and conceptualist traditions relocate thinking within the domain of experience. Aristotle rejects the separation between forms and the world, proposing instead that universals are instantiated within things and grasped through abstraction. To think of a tree is to internalize its essence, not to ascend to a transcendent form. Conceptualism further refines this position by replacing essences with concepts, emphasizing the mind's capacity to generate representations shaped by experience. Yet this grounding of thought introduces its own difficulties: while it explains how concepts arise, it struggles to account for the structure that binds them into complex propositions, where relations such as disjunction or implication exceed mere aggregation. The problem shifts from access to organization, from how we encounter ideas to how they cohere.

Theories centered on language approach thinking from a different angle, proposing that its structure is inseparable from expression. Inner speech accounts describe thought as a muted form of dialogue, a continuous internal articulation in which the mind speaks to itself. Thinking here is not prior to language but enacted through it, accessible through introspection as a kind of overheard discourse. This perspective gains plausibility from the phenomenological experience of silent speech, yet it encounters resistance when confronted with forms of cognition that appear non-linguistic, such as visual imagination or animal awareness. The hypothesis of a language of thought radicalizes the linguistic model by positing an underlying mental code—often called *Mentalese*—that governs all thinking independently of any natural language. Associated with Jerry Fodor, this view explains the productivity and systematicity of thought by attributing to it a combinatorial structure akin to grammar. However, its abstraction invites critique, particularly from models that demonstrate intelligent behavior without explicit symbolic representation, suggesting that thought may not require language in any conventional sense. Associationism offers a more modest account, reducing thinking to the flow of ideas linked by patterns established through experience. Thoughts follow one another not because of inherent logical necessity but because of habitual connections—similarity, contrast, and contiguity. This model captures the fluidity of mental life, its tendency to drift and recombine, yet it falters when confronted with the rigor of logical reasoning or mathematical thought, where connections appear governed by rules rather than associations. The associative chain explains movement but not structure, sequence but not necessity.

Behaviorism represents a more radical departure, abandoning the inner domain altogether and redefining thinking as a set of behavioral dispositions. In this framework, to think is not to engage in hidden processes but to exhibit patterns of potential action in response to stimuli. Thought becomes observable through behavior, eliminating the need to posit inaccessible mental states. Yet this reduction encounters a critical limitation when behavior diverges from apparent belief or desire, as in cases where conflicting motivations inhibit action. The internal complexity that behaviorism seeks to bypass reasserts itself, revealing that observable responses cannot fully capture the tensions within the mind. Computationalism, emerging alongside the development of computer science, reframes thinking as information processing, aligning mental activity with systems that manipulate symbols according to formal rules. Thought becomes analogous to computation, a sequence of operations that transform inputs into outputs. This model gains strength from its capacity to integrate functionalist and representationalist insights, allowing mental states to be defined by their roles rather than their material substrate, and enabling the possibility that thinking could occur in non-human systems. Yet this generality also becomes its weakness: if any sufficiently complex system can be interpreted as computational, the concept risks losing specificity, dissolving into a universal descriptor that explains everything and therefore nothing. Moreover, the reduction of thought to processing leaves unresolved the qualitative dimensions of experience that resist formalization.

Across these theories, a pattern emerges: each captures an aspect of thinking while exposing its own insufficiency. The Platonic model reveals the aspirational dimension of thought, its orientation toward universality; the Aristotelian and conceptualist accounts ground it in experience; linguistic theories illuminate its structural articulation; associationism describes its fluid continuity; behaviorism emphasizes its external manifestation; and computationalism models its formal operations. None, however, can claim completeness, because thinking is not confined to any single dimension. It is at once process and structure, activity and representation, internal and external, conscious and unconscious. Theories of thinking thus function less as definitive explanations than as interpretive lenses, each sharpening one aspect while blurring others. The persistence of multiple theories does not indicate failure but necessity. Thinking, as the condition through which all inquiry proceeds, cannot be fully objectified without remainder. Every attempt to define it is itself an act of thinking, caught within the very phenomenon it seeks to explain. The multiplicity of theories reflects this recursive condition: thought examining itself generates not a single truth but a proliferation of perspectives, each revealing that the mind is both the instrument and the limit of its own understanding.

### ***The Many Faces of Thought: From Judgment to Invisible Cognition***

In the structured exposition of thinking presented in *Encyclopedia of Philosophy*, the diversity of cognitive activity appears not as a unified system but as a constellation of distinct yet overlapping forms, each oriented toward different ends—some toward truth, others toward action, and many toward the ambiguous space in between. No single taxonomy succeeds in containing this diversity, because thinking itself resists stable classification, continuously shifting between modes that reflect both the structure of knowledge and the demands of life. Among its most immediate forms is judgment, where thinking assumes a decisive posture. To judge is not merely to entertain an idea but to affirm or deny it, to commit oneself to its truth or falsity. In this sense, thinking becomes an act of positioning, determining what is to be believed. Traditional accounts describe judgment as the combination of concepts into propositions, where meaning arises from their arrangement. Yet this combinatory view is challenged by Franz Brentano, who reconceives judgment as an act



of belief directed toward the existence or non-existence of what is considered. This distinction reveals a deeper divide within thinking itself: between merely holding an idea before the mind and endorsing it as real. To entertain a thought is to suspend commitment; to judge is to cross a threshold into belief.

Reasoning extends this movement, transforming isolated judgments into structured sequences. Here thinking becomes inferential, drawing conclusions from premises and weaving discrete claims into coherent patterns. Deductive reasoning exemplifies the ideal of certainty, where conclusions follow necessarily from their foundations, while non-deductive forms such as induction and analogy operate within probability, offering plausibility without guarantee. The presence of fallacies—errors that mimic valid reasoning—demonstrates that thinking is not inherently reliable but must be disciplined. These missteps reveal that the appearance of rationality can mask underlying instability, making reasoning both a tool of knowledge and a source of illusion. Beneath these operations lies the formation of concepts, the quiet work through which the mind organizes the world. Concepts function as the basic units of thought, enabling classification and making propositions possible. To possess a concept is not merely to name a category but to navigate it, to distinguish its instances and draw inferences from them. This ability suggests that thinking is inseparable from skill, from the capacity to recognize patterns and respond appropriately. Even here, the boundary between human and non-human cognition becomes porous, as evidence indicates that some animals can acquire rudimentary concepts through associative processes. Thought, in this sense, is not an exclusive possession but a graded phenomenon, varying in complexity across forms of life.

Problem solving introduces tension into the process, confronting thought with obstacles that demand resolution. It reveals thinking as an activity oriented toward goals, requiring both the generation of possibilities and their reduction. Divergent thinking expands the field of options, while convergent thinking narrows it, guiding the mind toward a solution. The distinction between well-structured and ill-structured problems further highlights the variability of this process: some challenges yield to methodical procedures, while others require insight that cannot be fully systematized. Strategies such as algorithms promise certainty but often at the cost of rigidity, whereas heuristics offer flexibility while risking error. The contrast between novice and expert approaches underscores that thinking evolves with experience, shifting from immediate action to deeper conceptual understanding. Deliberation transforms problem solving into decision, placing thinking within the sphere of action. Here the mind evaluates alternatives, weighing reasons for and against each possibility before committing to a course. Decision theory attempts to formalize this process through the calculation of expected value, yet such models capture only part of the phenomenon, for deliberation often involves elements that resist quantification. The idea that thinkers simulate outcomes internally suggests that thought functions as a laboratory, allowing actions to be tested without consequence. This capacity for internal experimentation reveals a fundamental economy: thinking replaces action, conserving effort by anticipating results before they occur.

Memory and imagination extend this internalization further, generating representations that detach from immediate reality. Episodic memory reconstructs the past, reanimating experiences with a sense of familiarity and temporal placement, while imagination breaks free from actuality, recombining elements into novel configurations. Both operate without direct sensory input, yet they retain traces of perception in their content, preserving the textures of experience even as they transform them. These forms of thinking blur the boundary between what has been and what could be, situating the mind in a continuous interplay between recollection and invention. At the margins

of awareness lies unconscious thought, a domain where cognition proceeds without deliberate control. Solutions that emerge suddenly after periods of inactivity suggest that thinking does not cease when attention shifts but continues in hidden processes. This dimension challenges the assumption that thought is identical with consciousness, revealing instead a layered system in which visible and invisible operations coexist. The suggestion that unconscious processes may excel at complex problems while conscious thought manages simpler tasks further complicates the hierarchy of cognition, implying that what is most effective is not always what is most accessible.

Taken together, these forms of thinking reveal not a single faculty but a multiplicity of operations, each contributing to the broader phenomenon without defining it entirely. Judgment commits, reasoning connects, concepts organize, problem solving resolves, deliberation chooses, memory recalls, imagination invents, and unconscious processes sustain the whole from beneath awareness. Thinking is thus not a unified act but a dynamic interplay of functions, constantly shifting between abstraction and application, certainty and probability, awareness and obscurity. Its richness lies precisely in this plurality, where no single form can claim primacy, and where the mind reveals itself as both structured and fluid, disciplined and creative, finite in its mechanisms yet inexhaustible in its possibilities.

### ***The Silent Code and the Spoken World: Language at the Edge of Thought***

In the comprehensive treatment of language and cognition presented in *Encyclopedia of Philosophy*, the relationship between language and thought appears not as a settled hierarchy but as an unresolved tension between two competing intuitions: that we think through language, and that thought precedes and exceeds it. This tension has generated two dominant orientations. On one side stands the hypothesis associated with Edward Sapir and Benjamin Lee Whorf, which proposes that language shapes the contours of thought. In its strongest formulation, linguistic determinism claims that without language there can be no thinking, a position largely abandoned for its inability to account for pre-linguistic cognition and non-verbal reasoning. In its weaker form, linguistic relativity persists, suggesting that the structure of a language influences how its speakers perceive and interpret the world, guiding attention, categorization, and memory without fully determining them. Opposing this stands the language of thought tradition, which insists that thinking operates within an internal system independent of any public language. Here thought is not spoken but encoded, unfolding in a mental medium that enables abstraction and private cognition, while ordinary language remains a tool for expression rather than a condition of possibility.

Between these positions lies a complex field where language, thought, and culture intertwine in ways that resist clean separation. Empirical investigation struggles to isolate their respective contributions, as each shapes and is shaped by the others. Language transmits thought between individuals, but it also returns to the mind as input, restructuring what it conveys. The act of speaking or writing often follows cognition, translating internal configurations into communicable form, yet this translation is never neutral. Writing, in particular, transforms thought by allowing it to be revisited, revised, and refined, introducing a temporal distance that enables precision and abstraction. Language does not merely express thought; it reorganizes it, providing frameworks within which ideas can be stabilized and extended. Without such frameworks, many forms of conceptual clarity would remain unattainable, suggesting that while thought may not depend entirely on language, it is profoundly altered by its presence. The language of thought hypothesis develops this insight by relocating linguistic structure within the mind itself. Associated with the work of Jerry Fodor, this approach proposes that thinking consists of operations over mental

representations structured like sentences. These representations form a system often described as *Mentalese*, characterized by combinatorial syntax and compositional semantics. In this framework, thought achieves its productivity—the ability to generate infinitely many ideas from finite elements—through the structured recombination of symbolic units. The causal syntactic theory explains mental processes as operations governed by the formal properties of these representations, while the representational theory of mind interprets beliefs and desires as relations between thinkers and the symbolic contents they manipulate. Influenced by the computational paradigm inspired by Alan Turing, this model portrays the mind as a system capable of executing rule-based transformations. Yet even here, language remains ambiguous: it is no longer external speech but an internal code, neither fully linguistic in the ordinary sense nor entirely distinct from it.

Scientific perspectives further complicate the relationship. The moderated form of the Sapir–Whorf hypothesis finds partial support in studies showing that linguistic differences can influence perception and memory, as in the categorization of colors, though such findings often reveal correlations rather than direct causation. Noam Chomsky offers a different approach, separating language from thought by positing an innate faculty that governs linguistic competence as one component of a broader cognitive system. In contrast, Jean Piaget situates both language and thought within developmental processes, emphasizing the gradual construction of increasingly complex representations from simpler interactions with the world. Lev Vygotsky introduces a dialectical perspective, arguing that thought and speech initially develop independently before converging, giving rise to internalized speech and rational articulation. Each of these accounts reframes the problem, shifting attention from static definitions to processes of emergence and interaction. Other approaches extend the inquiry into practical domains. Aaron T. Beck demonstrates how internal dialogue shapes emotion and behavior, suggesting that altering patterns of thought can transform experience itself. Behavioral economics reveals that the framing of language influences decision-making, showing that how options are described affects the choices individuals make. Phenomena such as the availability heuristic, the mere exposure effect, and the asymmetries described by prospect theory illustrate that language does not simply communicate preferences but actively configures them. Thought, in these contexts, is inseparable from the linguistic forms through which it is articulated, revealing a feedback loop in which language both expresses and reshapes cognition.

What emerges from these perspectives is not a resolution but a recognition of mutual dependence. Thought can occur without public language, yet it rarely remains untouched by it. Language can shape perception and reasoning, yet it does not fully determine them. The relationship is neither one of dominance nor independence but of continuous interaction, where internal representations and external expressions influence each other in dynamic ways. Language provides the scaffolding through which thought becomes shareable, revisable, and extended across time, while thought supplies the content that language seeks to capture but never fully contains. The interplay between language and thought thus reveals a deeper paradox: the medium through which we attempt to understand thinking is itself part of what we seek to explain. Every theory articulated in language risks reflecting the very structures it attributes to the mind. In this sense, the investigation becomes reflexive, with language turning back upon itself to examine its role in shaping cognition. The result is not a final answer but an ongoing dialogue, where thought and language continually redefine each other, remaining inseparable yet never reducible to one another.

### ***Measured Worlds: How Language Calibrates Perception and Number***

In the empirical discussions of linguistic relativity presented in *Encyclopedia of Philosophy*, the Sapir–Whorf hypothesis moves from abstract speculation to observable variation, revealing how language does not merely describe the world but calibrates the ways in which it is measured, oriented, and perceived. Cross-cultural studies provide a field in which thought becomes visible through difference, exposing how cognitive processes shift alongside linguistic structures without collapsing entirely into them. One of the most striking domains in which this influence appears is numerical cognition. Among the Mundurucu, numerical language remains closely tied to the body, with words extending only to quantities that can be directly mapped onto physical experience: five as a hand, ten as two hands, and beyond that an undifferentiated many. A similar pattern emerges among the Pirahã, whose system reduces quantity to a minimal distinction between one, two, and many. Experimental tasks reveal that this linguistic limitation is not confined to speech but extends into cognition itself. While small quantities can be represented with precision, larger ones dissolve into approximation, governed by what is known as analog estimation, where accuracy diminishes as magnitude increases. The mind, in this context, does not simply fail to name larger numbers; it struggles to stabilize them as distinct entities. Language here acts as a scaffold for precision, and where it is sparse, cognition reflects that sparseness.

Spatial orientation offers an even more dramatic illustration of this relationship. In certain Aboriginal Australian communities, including speakers of the Kuuk Thaayorre language, spatial reference is anchored not in the relative positions of the body but in fixed cardinal directions. To describe the location of an object is to situate it within a global coordinate system, independent of perspective. A statement such as the presence of an object on one's northeast side replaces the more familiar left or right, requiring constant awareness of orientation. This linguistic structure imposes a cognitive discipline: speakers must continuously track their position within the environment in order to speak at all. The result is not merely a difference in expression but a transformation in perception, as individuals develop heightened navigational abilities and spatial awareness. Thought becomes geographically attuned, shaped by the demands of a language that refuses egocentric reference. The domain of color further reveals how language modulates perception at the level of categorization. Across languages, color vocabularies follow a recurring pattern, beginning with basic distinctions such as black and white and expanding through stages that introduce red, then green or yellow, followed by blue and additional refinements. This progression suggests a shared perceptual foundation, yet the presence or absence of specific terms influences how colors are distinguished and remembered. Speakers of languages with richer color lexicons demonstrate greater sensitivity to differences within the spectrum, not because their eyes perceive differently, but because their linguistic categories sharpen attention and memory. Perception, in this sense, is not purely given but structured through the conceptual distinctions that language provides.

These cases collectively illustrate that language does not imprison thought but configures its pathways. Numerical systems shape the granularity with which quantities are apprehended, spatial frameworks determine how orientation is maintained, and color vocabularies refine perceptual discrimination. The influence is neither absolute nor negligible; it operates within limits, guiding cognition without fully determining it. The weaker form of the Sapir–Whorf hypothesis finds its strength precisely here, in the subtle but persistent ways linguistic structures interact with cognitive processes. What emerges is a view of thought as partially molded by the tools through which it is articulated. Language supplies distinctions that thought can adopt, reinforcing certain patterns while leaving others undeveloped. Yet this influence remains dynamic, as cognition can extend beyond linguistic constraints through approximation, inference, and abstraction. The relationship

is therefore reciprocal: language shapes thought, but thought also pushes against the boundaries of language, revealing possibilities that exceed its current forms. In this interplay, cognition appears not as a fixed capacity but as a system continuously adjusted by the symbolic structures it inhabits.

### ***Languages that Shape Minds: Reform, Persuasion, and the Shifting Self***

In the extended discussions of linguistic influence presented in *Encyclopedia of Philosophy*, alternative schools of thought approach language not merely as a medium of expression but as a tool that can be deliberately reshaped in order to transform cognition itself. These perspectives move beyond description into intervention, proposing that by altering linguistic habits one might recalibrate perception, judgment, and behavior. Language becomes not only a reflection of thought but an instrument for its redesign. One of the earliest systematic attempts at such reform appears in the work of Alfred Korzybski, whose program of general semantics seeks to refine language in order to reduce confusion and distortion. Here semantics expands beyond meaning in the narrow sense to encompass the total response of the organism—neurological, emotional, cognitive, and behavioral. Every utterance is embedded within this broader reaction, making language inseparable from the ways individuals evaluate and respond to events. By cultivating awareness of these responses, proponents argue, one can mitigate habitual distortions and achieve a more adaptive relation to reality. Language reform thus becomes a form of cognitive hygiene, aimed at aligning expression with experience while reducing the rigidity imposed by abstraction.

A more radical linguistic intervention is found in E-Prime, a modified form of English that eliminates all forms of the verb to be. This seemingly technical adjustment carries philosophical consequences, as it discourages statements that present judgments as objective facts. Instead of asserting what something is, speakers are encouraged to frame their statements in terms of perception and interpretation. The shift from certainty to qualification introduces a degree of reflexivity into language, forcing speakers to acknowledge their role in constructing meaning. In doing so, E-Prime attempts to loosen the grip of absolutism, replacing fixed declarations with context-sensitive expressions that foreground subjectivity. Another approach, developed by Richard Bandler and John Grinder, extends the transformative ambition of language into the domain of behavior. Neuro-linguistic programming proposes that patterns of speech and representation can be manipulated to alter perception and action, drawing on influences such as the therapeutic techniques of Milton Erickson. In this framework, language functions as a set of levers capable of reshaping internal states. Yet this promise of control has been met with substantial skepticism, as critics point to the absence of robust empirical support, suggesting that the model's explanatory reach exceeds its evidential grounding. The tension between its practical appeal and scientific credibility highlights the difficulty of translating linguistic influence into reliable technique.

Questions of language reform also emerge in the domain of social justice, particularly in the movement toward non-sexist language. Critics argue that habitual linguistic forms encode and perpetuate gender hierarchies, embedding bias within everyday expression. The replacement of male-generic terms with more inclusive alternatives represents an attempt to realign language with evolving social values. Here the transformation of language is not only cognitive but ethical, aimed at reshaping the symbolic environment in which individuals understand themselves and others. Language becomes a site of negotiation, where shifts in terminology reflect broader changes in collective consciousness. The persuasive dimension of language reveals another facet of its power. Across practices such as oratory, advertising, debate, and rhetoric, language is deliberately crafted to influence belief and behavior. From the analyses of ancient sophists to contemporary strategies



of public relations, the capacity of language to frame reality has been systematically explored. Techniques such as framing and spin demonstrate that the presentation of information can alter its interpretation, guiding perception without necessarily altering content. In this sense, language operates not only as a vehicle of truth but as a mechanism of influence, capable of shaping public understanding through subtle shifts in emphasis and structure.

The interplay between language and thought becomes especially visible in bilingual contexts, where individuals navigate multiple linguistic frameworks. Studies indicate that speakers may exhibit different patterns of motivation and valuation depending on the language in use. In one context, social norms may exert greater influence; in another, individual incentives may dominate. Similarly, shifts in language can correspond to changes in the prioritization of values, suggesting that each linguistic system carries with it a distinct configuration of associations and cultural meanings. The bilingual mind thus becomes a site of internal plurality, where different modes of thinking are activated by different linguistic environments. Taken together, these approaches reveal that language is not a neutral medium but a dynamic force capable of shaping cognition, behavior, and social reality. Whether through deliberate reform, persuasive practice, or the multiplicity of linguistic contexts, language continually interacts with thought, guiding its patterns while remaining open to transformation. The ambition to control or refine this influence reflects a deeper recognition: that to alter language is, in some measure, to alter the conditions under which thinking itself unfolds.

### ***The Grammar of Perception: How Language Bends the Shape of Thought***

In the historical and analytical synthesis of linguistic relativity presented in Encyclopedia of Philosophy, the relationship between language and thought emerges as a gradual shift from metaphysical speculation to empirical inquiry, revealing not a doctrine of constraint but a subtle architecture of influence. Linguistic relativity proposes that the structures of language participate in shaping cognition and worldview, not by imprisoning thought within rigid categories, but by guiding its habitual paths. The stronger claim, linguistic determinism, once suggested that thinking could not exist beyond linguistic form, yet this position has largely been abandoned as incompatible with evidence of non-linguistic cognition. What remains is a more nuanced view: language does not dictate what can be thought, but it affects how thought is organized, recalled, and expressed.

The roots of this idea extend deep into philosophical history. Plato already questioned whether language mirrors reality or actively shapes it, initiating a tension that would persist across centuries. During the Enlightenment, Johann Gottfried Herder and Wilhelm von Humboldt reframed the issue by proposing that each language embodies a distinct worldview, a *Weltanschauung* through which reality is interpreted. Humboldt's assertion that language forms the fabric of thought suggests that cognition is never purely internal but mediated by symbolic structures that carry cultural meaning. Thought, in this perspective, becomes inseparable from the linguistic forms through which it takes shape. This philosophical lineage found empirical grounding in the work of Franz Boas, who challenged hierarchical assumptions about languages by emphasizing their equal capacity to organize experience. His student Edward Sapir extended this insight, arguing that differences between languages correspond to differences in habitual perception and interaction with the world. Crucially, Sapir rejected the deterministic interpretation, maintaining that language influences but does not confine thought. Benjamin Lee Whorf further developed these ideas into what became known as the principle of linguistic relativity, examining how linguistic patterns shape habitual cognition. His analyses of Indigenous American languages,

particularly his claims about temporal concepts, became emblematic of the theory, though later critiques revealed that some of these interpretations overstated or misrepresented linguistic realities.

By the mid-twentieth century, the rise of universalist theories shifted attention away from relativity. Noam Chomsky proposed that language rests on innate structures shared across humanity, suggesting that cognitive universals outweigh linguistic differences. Critics of relativity pointed to the lack of rigorous empirical support in earlier formulations, leading to experimental investigations such as those conducted by Roger Brown and Eric Lenneberg. Their studies, particularly in color perception, offered limited but suggestive evidence that language can influence categorization, even if it does not determine it. These efforts marked a transition from philosophical argument to scientific testing, establishing a foundation for later research. From the late twentieth century onward, linguistic relativity experienced a revival, driven by systematic cross-linguistic studies. Research on spatial orientation revealed that speakers of certain languages rely on absolute cardinal directions rather than relative terms, leading to heightened spatial awareness and navigational precision. Investigations into color categorization demonstrated that linguistic distinctions affect memory and recognition, sharpening perceptual boundaries. Studies of temporal reasoning showed that linguistic frameworks can shape how sequences and durations are conceptualized. These findings collectively support the weaker form of relativity, illustrating that language influences cognitive patterns without imposing strict limits.

The theoretical landscape has continued to evolve through refinements such as the proposal by Dan Slobin, who introduced the notion of thinking for speaking. This approach suggests that language primarily shapes the organization of thought during the act of communication, guiding attention to features that must be encoded in speech. In parallel, connectionist models emphasize the interaction between language and other cognitive processes, portraying thought as an emergent property of dynamic systems rather than a fixed structure. These perspectives move beyond earlier dichotomies, recognizing that language and thought are intertwined in complex, context-dependent ways. The broader implications of linguistic relativity extend beyond academic inquiry into cultural and imaginative domains. The idea that language can transform cognition has inspired speculative explorations, including narratives such as *Arrival*, where learning an alien language alters human perception of time itself. While fictional, such representations capture the intuitive appeal of relativity: the possibility that by changing the medium of thought, one might alter the structure of experience.

What ultimately emerges from the development of linguistic relativity is not a doctrine of limitation but a recognition of plasticity. Language provides patterns that thought can follow, emphasizing certain distinctions while leaving others less articulated. Yet cognition remains capable of exceeding these patterns, adapting and reconfiguring itself in response to new contexts. The interplay between language and thought thus reveals a dynamic equilibrium, where structure and flexibility coexist. Language shapes the contours of perception, but it does not seal them, leaving open the possibility that thought can both inhabit and transform the forms through which it is expressed.

### ***When Language Rewrites Time: Cinema and the Extremes of Linguistic Relativity***

In the interpretive extension of linguistic relativity outlined in *Encyclopedia of Philosophy*, the speculative possibilities of the theory find a vivid narrative form in *Arrival*, directed by Denis Villeneuve and based on Ted Chiang's story *The Story of Your Life*. Here the abstract question of

how language shapes thought is dramatized as an existential transformation, where understanding a new language becomes indistinguishable from becoming a different kind of mind. The central premise—that the language one speaks determines how one thinks—is not merely stated but enacted, turning theory into experience. The film unfolds as a layered exploration of three distinct interpretations of the hypothesis, each revealing a different boundary of linguistic influence. In its strongest form, linguistic determinism is realized through the transformation of perception itself. The protagonist's engagement with the alien language does not simply expand her vocabulary but restructures her cognition at a fundamental level. The circular and non-linear nature of this language dissolves the sequential order of time, allowing past, present, and future to be apprehended simultaneously. Thought here is no longer bound by chronology but reorganized according to a different temporal logic. This portrayal amplifies the deterministic claim to its most radical conclusion: that language can reshape not only interpretation but the very structure of experience.

Between this extreme and more moderate positions lies an intermediate perspective, focused on the instability of translation. Communication with the extraterrestrial visitors reveals how linguistic differences generate ambiguity and misinterpretation. A single term becomes the focal point of global tension, as its meaning oscillates between threat and offering. The uncertainty surrounding this word exposes the fragility of meaning when transferred across radically different systems. Language does not simply convey intentions; it refracts them, introducing distortions that can escalate into conflict. The challenge of interpretation becomes a test of cognitive flexibility, requiring a suspension of immediate assumptions in favor of deeper contextual understanding. The softer version of linguistic relativity appears in the contrast between different modes of reasoning embodied by the characters. The linguist approaches the unknown through interpretation and dialogue, prioritizing the gradual construction of shared meaning, while others rely on calculation, prediction, or strategic response. These divergent approaches illustrate how language and training shape not only what is thought but how problems are approached. Thought becomes conditioned by the frameworks through which it is articulated, revealing that cognition is always situated within a broader context of practice and perspective.

Beyond these theoretical layers, the narrative advances a broader reflection on the function of language in human interaction. Communication emerges as both a risk and a possibility, capable of producing misunderstanding or enabling cooperation. The crisis depicted in the film hinges not on the presence of difference but on the failure to interpret it adequately. When language is treated as transparent, it becomes dangerous; when approached with humility and openness, it becomes a means of connection. The act of understanding is shown to require patience, reinterpretation, and a willingness to revise one's assumptions. At the same time, the film underscores the inherent imperfection of language. Words never fully capture what they intend to express, leaving space for ambiguity and reinterpretation. Yet this limitation does not render communication futile; rather, it defines its necessity. The effort to bridge differences through language becomes an ethical act, one that acknowledges the gap between expression and meaning while striving to overcome it. The statement that language is the first instrument drawn in conflict encapsulates this duality, pointing to its capacity to divide as well as to unite.

What this cinematic exploration ultimately reveals is the extent to which language participates in shaping reality without fully determining it. By dramatizing the strongest version of the hypothesis while situating it alongside more moderate interpretations, the narrative exposes both the allure and the limits of linguistic determinism. Thought may be guided, expanded, and even transformed by language, but it remains an active process that interprets and negotiates meaning rather than

passively receiving it. The encounter with an alien language thus becomes a metaphor for all communication: an engagement with difference that challenges the boundaries of understanding while revealing the profound dependence of thought on the forms through which it is expressed.

***The Dialogue Within: Intrapersonal Communication as the Hidden Engine of Thought***

In the comprehensive account of inner communication outlined in Encyclopedia of Communication Theory, intrapersonal communication emerges not as a marginal phenomenon but as the foundational layer upon which all outward communication depends, a continuous exchange in which the individual becomes both speaker and listener, author and interpreter. It is here, within the silent interior of the mind, that meaning is first formed, revised, and stabilized before it ever appears in speech or action. What appears externally as communication between individuals is, at its origin, rooted in this prior dialogue within the self. At its most immediate level, intrapersonal communication consists of the internal circulation of messages, a process often described as thinking, reflecting, or mentally rehearsing possible futures. Yet such descriptions risk simplifying what is in fact a complex system of operations. The internal exchange is not limited to verbal articulation but includes images, sensations, and abstract configurations that do not take linguistic form. Thought here unfolds across multiple modalities, combining language with perception and memory in ways that resist clear separation. Even when externalized through writing or spoken self-address, these expressions remain anchored in the same reflexive structure: the self addressing itself in order to clarify, anticipate, or regulate its own activity.

This reflexivity reveals that intrapersonal communication is not a singular voice but often a plurality of perspectives. What is commonly called self-talk may present itself as a unified stream, offering encouragement or criticism, yet closer examination reveals the presence of multiple positions within the same mind. Inner dialogue simulates conversation, staging conflicts, negotiations, and resolutions between competing tendencies—rational and emotional, cautious and impulsive, reflective and reactive. The self thus appears not as a fixed entity but as an ongoing interaction, a dynamic field in which different orientations contend and cohere. Communication within the self becomes the mechanism through which identity is continuously constructed and reorganized. Theoretical models attempt to capture this complexity by tracing the flow of stimuli and responses that constitute inner communication. Early formulations describe a process beginning with both internal impulses and external inputs, which are filtered and interpreted before being encoded into meaningful structures. These interpretations generate further responses, forming a feedback loop that sustains ongoing cognition. Other models emphasize the simultaneous decoding of environmental and behavioral cues, highlighting that even in apparent isolation, the individual remains embedded within a network of influences that shape internal discourse. In each case, intrapersonal communication appears as a system of continuous adjustment, where meaning is not given but produced through iterative cycles of interpretation.

The relationship between intrapersonal and interpersonal communication further underscores its centrality. While the former occurs within a single individual and the latter between distinct individuals, they are inseparable in practice. External interactions reshape the internal dialogue, as feedback from others becomes internalized and incorporated into self-concept. Conversely, intrapersonal processes prepare and guide interpersonal exchanges, enabling individuals to anticipate responses, formulate arguments, and regulate emotional expression. The boundary between inner and outer communication thus becomes permeable, with each domain feeding into the other in a continuous exchange. The functional significance of intrapersonal communication

becomes especially visible in its role in mental life. Positive forms of self-address can reinforce confidence, support adaptive behavior, and facilitate problem-solving, while negative patterns can intensify anxiety, diminish self-worth, and distort perception. The tone of inner communication shapes emotional experience, influencing not only how situations are interpreted but how they are felt and acted upon. This insight underlies therapeutic approaches that seek to transform maladaptive patterns of thought by intervening in the internal dialogue, replacing self-defeating narratives with more constructive ones. The mind becomes both the site of difficulty and the instrument of its own reconfiguration.

Beyond regulation, intrapersonal communication enables the organization of cognition itself. Problem-solving relies on the internal structuring of possibilities, decision-making depends on the evaluation of alternatives, and learning is reinforced through rehearsal and reflection. Creativity emerges from the recombination of internal representations, while self-reflection allows individuals to situate themselves within their own experience, constructing a coherent sense of identity. In each of these functions, communication within the self operates as the medium through which thought becomes ordered and directed. This process is closely tied to the development of self-concept, which encompasses self-image, self-esteem, and the idealized version of the self. Intrapersonal communication mediates between these dimensions, shaping how individuals interpret their experiences and evaluate their own actions. A stable and constructive self-concept supports adaptive patterns of thought, while a fragmented or negative self-concept can lead to cycles of self-criticism and doubt. The internal dialogue thus becomes both a reflection of identity and a force that actively shapes it.

Despite its centrality, intrapersonal communication presents significant challenges for study. Its largely internal nature resists direct observation, requiring reliance on introspection and self-reporting, methods that are themselves shaped by the processes they attempt to describe. Conceptual ambiguity further complicates the field, as the boundaries between communication, cognition, and emotion remain difficult to define. Some critics question whether intrapersonal communication constitutes communication at all, suggesting that it may be more accurately understood as cognitive processing. Yet such critiques overlook the relational structure inherent in the phenomenon: even when confined to a single individual, the presence of differentiated perspectives and the exchange between them justify the term communication. Ultimately, intrapersonal communication reveals that the mind is not a silent container of thoughts but an active site of exchange, where meaning is continuously negotiated and reformed. It is within this internal dialogue that intentions are shaped, identities are constructed, and possibilities are explored before they enter the shared space of social interaction. Far from being secondary to external communication, it is the condition that makes all communication possible, the hidden engine through which thought becomes articulate and action becomes meaningful.

### ***Thinking with the Body: Cognition as Action in the World***

In the interdisciplinary synthesis of embodied cognition presented in Encyclopedia of Cognitive Science, thought is no longer conceived as an isolated operation of an abstract mind but as a process inseparable from the living body and its continuous engagement with the environment. Against traditions that locate cognition solely in internal representations, this perspective redefines thinking as an activity distributed across brain, body, and world. Perception, memory, reasoning, language, and emotion are not self-contained mechanisms but dynamic outcomes of sensorimotor interaction, shaped by movement, sensation, and context. The mind does not merely interpret reality; it participates in its formation through embodied action. This reconfiguration directly

challenges the dualistic legacy of René Descartes, who separated thinking substance from extended substance, placing cognition in a realm distinct from the body. Embodied cognition dissolves this division, arguing that the very capacities enabling thought—perception, movement, and bodily orientation—are not peripheral but constitutive. To think is already to be situated, to occupy a position within a biological, cultural, and environmental field that shapes the possibilities of cognition. The body becomes not a vessel for the mind but its condition of existence, grounding abstract processes in lived experience.

Within this framework, theories such as enactivism further radicalize the conception of cognition by defining it as an emergent property of interaction. Thought arises not from passive reception but from active engagement, where the organism and its environment co-determine each other. Related approaches, including situated and extended cognition, expand this view by emphasizing how tools, social structures, and external representations participate in cognitive processes. The boundaries of the mind thus extend beyond the skin, incorporating elements of the world into the unfolding of thought. Cognition becomes an event rather than a location, a process distributed across systems rather than confined to a single organ. The historical roots of this perspective can be traced through philosophical traditions that resisted abstraction detached from experience. Thinkers such as Johann Gottfried Herder and Wilhelm von Humboldt emphasized the integration of language, culture, and bodily life, suggesting that cognition reflects the conditions of its emergence rather than existing independently of them. This orientation finds further development in phenomenology, where figures like Edmund Husserl, Martin Heidegger, and Maurice Merleau-Ponty foreground the primacy of lived experience. In this tradition, perception is not a passive recording of stimuli but an active, embodied encounter with the world, and cognition is inseparable from this encounter.

Contemporary developments in cognitive science and neuroscience provide empirical support for these philosophical insights. Studies demonstrate that sensorimotor systems are engaged during tasks traditionally considered purely cognitive, such as language comprehension or memory recall. The processing of action-related language activates motor regions, suggesting that understanding is grounded in bodily schemas. Similarly, perception and memory are influenced by the body's interactions with its environment, indicating that cognition operates through embodied patterns rather than abstract symbols alone. These findings reinforce the claim that thought is rooted in the same systems that enable movement and sensation. Behavioral research further illustrates the practical implications of embodiment. Learning processes are enhanced when they incorporate physical engagement, as gestures and movement facilitate understanding in domains such as mathematics. Social interactions reveal a similar dynamic, where synchrony in bodily movement fosters connection and empathy, suggesting that cognition extends into interpersonal coordination. Emotional experience is likewise shaped by bodily states, with physical conditions influencing how situations are interpreted and felt. In each case, cognition emerges as a synthesis of internal and external factors, mediated by the body's presence in the world. The influence of embodied cognition extends into technological domains, particularly in robotics and artificial intelligence. Systems designed to interact with their environment in real time demonstrate that intelligence cannot be reduced to abstract computation alone. Embodied machines adapt to complex situations by integrating perception and action, reflecting the same principles observed in biological cognition. This convergence suggests that understanding intelligence requires attention not only to information processing but to the physical conditions under which it operates.

Despite its explanatory power, embodied cognition faces challenges that reflect its breadth. The diversity of approaches grouped under its name leads to conceptual ambiguity, as different

interpretations emphasize distinct aspects of embodiment. Empirical findings, particularly in areas such as the influence of bodily posture on cognition, have encountered difficulties in replication, raising questions about the robustness of certain claims. Research into early development further complicates the picture, as pre-verbal cognition reveals interactions between embodied processes and emerging symbolic capacities that resist simple categorization. These challenges do not undermine the perspective but highlight the complexity of the phenomenon it seeks to describe. What ultimately emerges from embodied cognition is a redefinition of thought itself. Cognition is no longer an abstract manipulation of symbols detached from experience but a living process grounded in the body's engagement with the world. The mind does not stand apart from its environment but arises within it, shaped by movement, perception, and interaction. Thinking becomes an activity of the whole organism, inseparable from the conditions of its existence. In this view, to understand thought is not to isolate it from the body, but to recognize that every act of cognition is already an act of being in the world.

### ***The Hidden Bridge of Time: Schemata as the Engine of Cognition***

In the systematic exposition of transcendental philosophy presented in *Critique of Pure Reason* by Immanuel Kant, the concept of schema emerges as a decisive yet elusive mechanism that enables thought to touch reality. A transcendental schema is neither an image nor a concept in the ordinary sense, but a rule of operation through which the understanding applies its pure categories to the flux of sensory intuition. Without this mediating function, cognition would collapse into a dual impossibility: concepts would remain empty, detached from experience, while intuitions would remain blind, lacking the structure necessary for recognition. The schema thus operates as the hidden bridge, translating between the abstract and the empirical through the medium of time.

Kant situates this mechanism within a carefully ordered system of cognition, where each level builds upon the previous. At its foundation lies the unity of apperception, the condition that binds all representations into a coherent self-consciousness. From this unity arise the logical functions of judgment, which in turn generate the pure categories of the understanding. Yet these categories, taken in themselves, remain formal and indeterminate, incapable of engaging with the sensory manifold. It is only through their schematization that they acquire applicability, becoming capable of organizing experience according to universal principles. The schema occupies this intermediate position, ensuring that the movement from pure thought to empirical knowledge does not break but unfolds continuously. The necessity of schemata becomes evident in the problem that Kant identifies at the heart of cognition: how can concepts that originate independently of experience relate meaningfully to what is given in experience? Empirical concepts derive their content from images and associations grounded in perception, but pure concepts lack such intuitive anchors. Schemata resolve this difficulty by providing a non-empirical procedure through which concepts can be applied. They function not as representations but as methods, guiding the imagination in structuring sensory input in accordance with conceptual rules. In this way, the schema transforms the indeterminate into the determinate, allowing thought to take hold of what would otherwise remain a chaotic manifold.

Kant distinguishes different types of schemata corresponding to different kinds of concepts. Empirical concepts rely on schemata that preserve a connection to sensory features, enabling recognition across varying instances. Mathematical concepts, grounded in the pure intuitions of space and time, depend on schemata that allow the construction of general forms independent of particular images. Most crucially, the pure categories of the understanding require schemata that translate their abstract structure into temporal determinations. These schemata ensure that



categories such as causality, necessity, and possibility can be applied to phenomena, not as static attributes but as rules governing sequences and relations in time. Time occupies a privileged role in this process, serving as the universal condition through which all schemata operate. For Kant, time is the pure form of inner intuition, encompassing all representations and providing the framework within which experience unfolds. Schemata are therefore temporal rules, specifying how categories structure the succession, duration, and coexistence of phenomena. The schema of causality, for instance, is not an image of cause and effect but the rule that one event must follow another according to a necessary sequence. Similarly, the schema of necessity corresponds to the persistence of something across all moments of time, while possibility refers to its potential occurrence within time. Through these determinations, the categories gain empirical significance, becoming conditions for the intelligibility of experience.

Crucially, schemata are not reducible to images or sensory representations. Kant emphasizes that they are procedural in nature, prescribing how the imagination must operate rather than presenting a fixed content. This distinction prevents the misunderstanding that concepts derive their meaning from pictorial representations. Instead, schemata function as dynamic rules that guide the synthesis of intuition, ensuring that experience conforms to the structures imposed by the understanding. They are the invisible operations through which cognition achieves coherence, enabling the mind to recognize objects as instances of general concepts. The distinction between schematized and unschematized concepts further clarifies their role. Categories that are successfully schematized can be applied to phenomena, grounding them in experience and making knowledge possible. In contrast, ideas of reason—such as those concerning totality, freedom, or the divine—lack corresponding schemata and therefore cannot be directly instantiated in sensory intuition. These ideas remain regulative rather than constitutive, guiding thought without providing determinate knowledge. Their meaning is mediated symbolically, through analogies that approximate what cannot be directly represented. This limitation reveals the boundaries of cognition, marking the point at which thought extends beyond the conditions of possible experience.

What Kant's theory ultimately discloses is that cognition depends not only on the presence of concepts and intuitions but on the rules that bind them together. The schema is this rule, operating silently between thought and perception, ensuring that the world is not merely given but organized in a way that makes it knowable. It is through schemata that the mind imposes order on experience without severing its connection to what is given. In this sense, schematism represents the deepest layer of cognitive activity, where abstraction and intuition converge through the temporal structure that underlies all representation. Thought becomes possible not because it transcends experience, but because it is able to structure it from within, guided by rules that remain hidden yet indispensable.

### ***The Unruly Object: How Meaning Emerges Between Perception and Language***

In *Kant and the Platypus: Essays on Language and Cognition*, Umberto Eco extends his semiotic inquiry into the unstable terrain where perception, language, and cognition intersect, confronting the persistent problem of how the mind recognizes and classifies what it has never encountered before. Against the temptation to reduce truth to illusion, as suggested by Friedrich Nietzsche, who described truth as a sedimented system of forgotten metaphors, Eco interrogates the status of meaning not as a mere fiction but as a negotiated construction that retains cognitive force. Truth, in this framework, is neither absolute nor arbitrary; it emerges through processes that bind perception to interpretation without collapsing one into the other.

Drawing on the semiotic theory of Charles Sanders Peirce and the critical philosophy of Immanuel Kant, Eco situates cognition within a dynamic interplay between what is perceived and what is already known. When confronted with unfamiliar phenomena, the mind does not passively receive data but actively interprets it through existing frameworks, attempting to stabilize novelty by relating it to prior categories. Yet this process is inherently unstable, as the new resists full assimilation, forcing cognition to adapt. Meaning thus arises not from direct correspondence but from the tension between recognition and revision, where established structures are both applied and transformed. This tension becomes explicit in Eco's distinction between different layers of knowledge. The concept of Cognitive Type refers to the internal mechanism through which individuals identify and distinguish objects, a private schema that enables recognition. Nuclear Content, by contrast, represents the shared features that allow such recognition to become intersubjective, forming the basis of collective agreement. Beyond this lies Molar Content, an expansive network of specialized and contextual knowledge that enriches and complicates understanding. These levels reveal that meaning is neither purely subjective nor entirely objective but emerges through a gradual alignment between individual cognition and social convention. The historical encounter of the Aztecs with the horse exemplifies this process, as an unfamiliar entity is initially interpreted through existing categories before necessitating their expansion.

The instability of classification is further dramatized in the case of the platypus, an organism that confounded European systems of knowledge for decades. Its features resisted established taxonomies, exposing the limitations of rigid categorical frameworks. Eco contrasts two modes of organizing knowledge to account for such difficulties: the dictionary model, which arranges meaning through fixed hierarchical categories, and the encyclopedic model, which accumulates properties and associations in a more flexible, networked structure. The eventual integration of the platypus into scientific understanding illustrates that meaning is not discovered in a final form but constructed through prolonged negotiation, where anomalies force systems to evolve. This constructive process extends even to entities that lack empirical existence. Through the example of the fictional Sarkiipone, Eco demonstrates that meaning can arise independently of direct reference, shaped by context and relational structures rather than by correspondence to reality. The significance of a term depends on the network of associations within which it operates, revealing that language can generate coherent meanings even in the absence of real-world counterparts. This capacity underscores the autonomy of semiotic systems, where meaning is sustained through internal relations as much as through external reference.

The final dimension of Eco's analysis concerns the role of similarity and likeness in cognition. Perception is not a neutral reception of sensory data but an interpretive act guided by semiotic processes that identify patterns and establish correspondences. The notion of iconism captures this process, where resemblance becomes a basis for meaning. Yet resemblance itself is not given but constructed, shaped by cultural expectations and prior knowledge. Cognitive types are therefore not merely perceptual but culturally inflected, carrying with them the accumulated weight of historical interpretation. What emerges from Eco's exploration is a vision of cognition as an ongoing negotiation between the world and the systems through which it is understood. Language does not simply label reality but participates in its construction, while perception is never free from the interpretive frameworks that guide it. Meaning is neither fixed nor arbitrary but evolves through interaction, as new experiences challenge existing categories and compel their transformation. The platypus, in this sense, becomes more than a biological curiosity; it stands as a symbol of the resistance of reality to complete classification, a reminder that knowledge advances not by confirming expectations but by confronting what escapes them.

*Eco, U. (1999) Kant and the Platypus: Essays on Language and Cognition. London: Harcourt Brace.*

### ***The Platypus Problem: When Thought Encounters the Unclassifiable***

In the introductory reflections of *Kant and the Platypus: Essays on Language and Cognition*, Umberto Eco frames his inquiry through an apparent absurdity: the juxtaposition of Immanuel Kant with a creature he could never have known. This incongruity is not accidental but methodological, echoing the playful dissonance of Jorge Luis Borges' imagined taxonomies, where classification itself becomes suspect. The question is not why Kant failed to consider the platypus, but how any system of thought confronts what lies outside its anticipations. From this starting point, the inquiry shifts toward a fundamental problem: how the mind distinguishes, organizes, and recognizes the ordinary objects that populate experience, and why such recognition, though seemingly effortless, conceals deep conceptual difficulties.

The investigation unfolds not as a unified system but as a series of exploratory movements, reflecting an intellectual hesitation that is itself revealing. The refusal to impose rigid structure mirrors the subject matter, as cognition does not proceed through fixed architectures but through adaptive and often uncertain processes. What appears as fragmentation is instead a deliberate openness, acknowledging that the phenomena under examination resist totalization. The attempt to understand how we recognize a tree, a chair, or a face becomes inseparable from the recognition that such understanding is always partial, conditioned by frameworks that both enable and limit perception. These reflections revisit earlier theoretical commitments, particularly those articulated in *A Theory of Semiotics*, where the processes of signification, reference, and interpretation were examined with systematic ambition. The passage of time, however, reveals the insufficiency of any closed system. Semiotics has expanded beyond its initial boundaries, dispersing into a network of disciplines that intersect with cognitive science, linguistics, and philosophy. What once appeared as a unified field now resembles an open constellation, where coherence must be negotiated rather than imposed. This expansion necessitates a shift in method, from the construction of comprehensive systems to the articulation of situated perspectives.

Central to this reorientation is a reconsideration of the relation between signs and reality. Earlier emphasis on the endpoint of interpretation, the moment at which meaning stabilizes, obscured the originating impulse that initiates the interpretive process. By returning to this neglected dimension, the inquiry confronts the constraints imposed by the world itself, acknowledging that interpretation is not boundless but conditioned by what resists it. This recognition leads to a position that seeks to mediate between internal and external accounts of meaning, proposing that cognition operates within a space where subjective construction encounters objective limitation. Thought is neither free invention nor passive reception, but a negotiation shaped by both interpretive freedom and the resistance of being. The metaphor of the garden replaces that of the system, suggesting a mode of inquiry that cultivates discrete areas of reflection without subordinating them to a single design. Each essay becomes an experiment, a localized attempt to rethink earlier assumptions without claiming definitive resolution. Change in thought is presented as gradual and iterative, resembling a process of shedding and renewal rather than abrupt transformation. This incremental movement reflects the nature of cognition itself, which evolves through continuous adjustment rather than sudden reconfiguration.

Within this evolving framework, the concept of cognitive semantics emerges as a focal point, integrating cultural and pragmatic dimensions into the study of meaning. Language and thought

are understood not as isolated structures but as practices embedded in shared contexts, where interpretation is guided by both collective conventions and experiential constraints. This approach culminates in a form of realism that acknowledges the interplay between internal representation and external reality, resisting both radical relativism and naive objectivism. Meaning is constructed, but not arbitrarily; it is shaped within limits that thought cannot entirely transcend. Narrative becomes a methodological tool in this exploration, not as a retreat into literary form but as a means of revealing the operations of common sense. Stories illuminate the implicit structures through which everyday cognition functions, exposing the assumptions that underlie seemingly obvious distinctions. The platypus, as a recurring figure, embodies the disruption of these assumptions. Its resistance to classification exposes the fragility of taxonomic systems, demonstrating that what appears anomalous forces a reconsideration of the categories through which knowledge is organized. Rather than a monstrous exception, it becomes a philosophical instrument, revealing the limits of conceptual order.

The return to Kant underscores the persistence of these problems. His analysis of schematism, though historically distant, remains entangled with contemporary debates on cognition. The difficulty of explaining how abstract categories apply to sensory experience continues to challenge philosophical inquiry, suggesting that modern theories often revisit questions already posed without fully resolving them. To engage with this legacy is not to repeat it uncritically but to recognize the continuity of the problem, where each attempt at solution reveals new dimensions of the same underlying tension. What ultimately emerges from this reflection is a vision of thought as an ongoing negotiation between order and disruption. The platypus symbolizes the moment when established frameworks falter, forcing cognition to expand and adapt. Kant represents the effort to ground this process within a systematic account, even as that system reveals its own limitations. Between them lies the space of inquiry, where meaning is neither fixed nor arbitrary but continually reshaped through the encounter between mind and world.

*Eco, U. (1999) Kant and the Platypus: Essays on Language and Cognition. London: Harcourt Brace.*

### ***The Word That Cannot Be Named: Being Between Language and Resistance***

In the ontological reflections of Kant and the Platypus: Essays on Language and Cognition, Umberto Eco confronts a paradox at the heart of language: the most fundamental word, “being,” is also the least definable. Philosophy has long concerned itself with defining entities—humans, animals, objects—yet the verb that silently underlies all such definitions escapes the very operation it enables. As Blaise Pascal observed, any attempt to define being inevitably presupposes it, producing a circularity that cannot be resolved. Unlike Gorgias, who denied the possibility of speaking about being altogether, this insight reveals something deeper: being is not merely another concept among others, but the condition of their articulation. It is the ultimate primitive, present in every statement yet resistant to direct capture.

This resistance gives rise to a fundamental ambiguity that has shaped philosophical inquiry since antiquity. In *Metaphysics*, Aristotle approaches being as to on, a term that oscillates between existence, entity, and essence. Being can signify what exists, what something is, or the fact that it is at all. This multiplicity reveals a tension between extension and content: being applies to everything, yet in doing so it loses any specific determination. It names the universal condition of presence while remaining empty of particular meaning. The shift from treating being as a noun to examining it as a verb reflects this instability, as language attempts to grasp what continually

eludes fixation. To say that something is already presupposes a framework in which existence and predication intertwine without clear separation. Linguistic variation further exposes the difficulty of stabilizing this concept. Different languages attempt to distribute its meanings across distinct terms, separating entity from existence or essence from presence, yet none achieves complete clarity. The distinctions between forms such as entity and being, or between what exists and the fact of existence itself, reveal an effort to articulate nuances that remain fundamentally intertwined. Martin Heidegger radicalizes this tension by distinguishing between beings and Being, arguing that the latter cannot be reduced to any particular entity but must be approached through the experience of existence itself. In this perspective, being is not an object of knowledge but a horizon within which all objects appear, revealed indirectly through the finite and situated condition of human existence.

From a semiotic standpoint, the problem of being acquires a new urgency. Signs do not merely refer to other signs; they are compelled by something that precedes them, a presence that demands articulation. Drawing on the framework of Charles Sanders Peirce, this presence can be understood as the Dynamical Object, the element that initiates the process of signification without ever being fully exhausted by it. The act of interpretation circles around this object, generating an endless chain of representations that approach but never capture it completely. Being, in this sense, is not what is signified but what necessitates signification, the silent force that drives language into motion. Philosophical tradition has repeatedly affirmed the primacy of being while acknowledging its resistance to conceptual closure. Avicenna illustrates this through the thought experiment of a human suspended without sensory input, who nonetheless affirms existence. Thomas Aquinas similarly identifies being as the first concept grasped by the intellect, preceding all others in the order of understanding. Yet this priority does not translate into clarity. Being is known first, but never fully known, encountered as a condition rather than an object. For Heidegger, this encounter becomes existential, revealing itself in moments of anxiety where the familiar structures of meaning collapse, exposing the underlying openness of existence.

The multiplicity of meanings associated with being, already noted by Aristotle's claim that it is said in many ways, reflects not a failure of definition but an intrinsic richness. Being cannot be reduced to a single sense because it underlies all senses, appearing differently depending on the context in which it is invoked. Language, in attempting to articulate it, multiplies its expressions without exhausting its significance. This plurality suggests that being is not a fixed essence but a horizon that shifts with each act of interpretation, remaining constant only in its resistance to final determination. This resistance is not merely a limitation but a structural feature of reality itself. Being imposes constraints on interpretation, not by dictating specific meanings but by refusing to conform entirely to them. The world resists the projections of thought, maintaining an independence that cannot be overridden by language. These points of resistance mark the boundaries of interpretation, revealing that meaning is negotiated within limits rather than freely constructed. The refusal of things to become whatever we say they are grounds cognition in a reality that persists beyond representation.

Yet within these limits, language remains a site of exploration. Poetic expression, in particular, engages with the ambiguity of being, embracing its indeterminacy rather than seeking to eliminate it. Through metaphor and transformation, it probes the boundaries of what can be said, revealing new aspects of the familiar while acknowledging the impossibility of complete articulation. Friedrich Nietzsche's characterization of truth as a shifting array of metaphors captures this dynamic, where meaning evolves through reinterpretation even as it encounters resistance. The interplay between fluidity and constraint defines the space in which both poetic and scientific

inquiry operate. What ultimately emerges is a conception of being as both the origin and the limit of thought. It is the condition that makes language possible, the presence that compels articulation, and the resistance that prevents interpretation from becoming arbitrary. Being is not a stable object to be defined but a horizon to be engaged, encountered in the continual effort to reconcile thought with what exceeds it. In this tension, cognition finds its task: not to capture being once and for all, but to navigate its manifestations, recognizing that every act of understanding is shaped by what it cannot fully comprehend.

*Eco, U. (1999) Kant and the Platypus: Essays on Language and Cognition. London: Harcourt Brace.*

### ***The First Guess of the Mind: From Unicorns to Platypuses***

In the comparative reflections of *Kant and the Platypus: Essays on Language and Cognition*, Umberto Eco stages an encounter between Immanuel Kant and Charles Sanders Peirce through a deceptively simple narrative: the moment when the unfamiliar is forced into the mold of the known. The episode of Marco Polo and the rhinoceros exemplifies this cognitive reflex. Confronted with an unknown animal, Polo identifies it as a unicorn, not out of ignorance but out of necessity. The mind, lacking a ready-made category, reaches for the closest available structure, projecting it onto the new object even as discrepancies accumulate. Recognition, in this sense, begins as misrecognition, an approximation that reveals as much about the observer as about the observed.

This act of analogical identification exposes a fundamental mechanism of cognition. Rather than expanding the range of known entities, Polo modifies the internal content of the concept he already possesses. The unicorn is no longer the elegant creature of legend but becomes coarse, dark, and ungainly, its defining traits adjusted to accommodate the new experience. The extension of the concept remains stable, while its intension shifts, demonstrating that understanding proceeds not by immediate correction but by gradual recalibration. Thought does not abandon its initial hypothesis at the first sign of contradiction; it absorbs contradiction into the hypothesis, reshaping it from within. The problem intensifies when the object resists even this adaptive strategy. The platypus represents such a case, an entity whose features disrupt every available category. It cannot be comfortably assimilated into existing classifications, forcing cognition into a state of suspension. The attempt to identify it through analogy encounters limits, as each comparison—whether to mammal, bird, or fish—captures only a fragment of its structure. The platypus thus becomes a test case for the boundaries of conceptual systems, revealing the point at which recognition falters and new frameworks must emerge.

To understand this process, Peirce's theory of semiosis provides a crucial insight. Perception itself is not immediate but inferential, structured by hypotheses that interpret sensory input. Against the intuitionist assumption that knowledge arises directly from experience, Peirce argues that every act of perception involves a form of reasoning. The mind does not simply see; it interprets what it sees through prior concepts, generating provisional explanations that are subject to revision. Polo's identification of the rhinoceros as a unicorn exemplifies this abductive reasoning, where a hypothesis is formed to account for an observation and then modified as further evidence accumulates. Central to this interpretive process is what Peirce calls the Ground, the selective focus on certain qualities of an object that enables its initial classification. In recognizing a horned animal, Polo isolates specific features—horn and quadruped form—while temporarily disregarding others that conflict with expectation. Perception thus involves abstraction, a

narrowing of attention that makes recognition possible at the cost of completeness. This selective process unfolds within a triadic structure, where the external entity, the perceptual sign, and the internal representation interact to produce meaning. What is perceived is never the object itself but an interpretation shaped by prior knowledge and contextual emphasis.

Kant approaches the same problem from a different angle, seeking to explain how abstract categories can be applied to sensory experience. His concept of the schema functions as a mediating rule, enabling the recognition of objects despite their variability. Through schemata, the mind can identify instances of a concept such as “dog” across diverse appearances, maintaining coherence between thought and perception. Yet this mechanism presupposes that the relevant schema already exists. When confronted with an entirely novel entity, such as the platypus, the question arises: how is a schema formed where none is available? Kant attributes this to a hidden operation of the imagination, an unconscious activity that generates the necessary mediations. However, this explanation leaves unresolved the process by which the genuinely new is integrated into cognition. It is here that Peirce’s emphasis on abduction complements and extends Kant’s account. Where schematism presupposes the applicability of categories, abduction explains their transformation. The mind constructs provisional interpretations by combining fragments of existing knowledge, testing and revising them in response to experience. Understanding becomes an iterative process, where hypotheses are continually adjusted rather than definitively confirmed. The platypus, in this framework, is not an anomaly to be eliminated but a catalyst for cognitive development, forcing the expansion and reconfiguration of conceptual systems.

What this comparison ultimately reveals is that cognition operates through a dynamic interplay between stability and disruption. Kant provides the structure that allows recognition to occur, while Peirce explains how this structure evolves when confronted with novelty. The encounter with the unfamiliar exposes the limits of both systems, showing that no framework can fully anticipate the diversity of experience. Thought advances not by perfect classification but by the continual negotiation between what is known and what resists it. The platypus stands as a symbol of this negotiation, embodying the moment when existing categories fail and new ones must be forged. It reveals that perception is not a passive reception of reality but an active process of interpretation, grounded in prior knowledge yet open to transformation. Understanding emerges not from certainty but from the capacity to revise, to adapt, and to incorporate what initially appears incomprehensible. In this sense, cognition is always provisional, an ongoing effort to align the structures of thought with the resistance of the world.

*Eco, U. (1999) Kant and the Platypus: Essays on Language and Cognition. London: Harcourt Brace.*

### ***The Animal That Broke the System: The Platypus and the Birth of New Concepts***

In the philosophical experiment developed in *Kant and the Platypus: Essays on Language and Cognition*, Umberto Eco transforms the platypus from a zoological anomaly into a decisive test for the limits of cognition. When the creature first reached Europe at the end of the eighteenth century, its composite features—beak, fur, webbed limbs, and egg-laying reproduction—provoked disbelief, even suspicion of fraud. Its very existence seemed to violate the classificatory order through which knowledge had been organized. The question that follows is not merely historical but epistemological: how would a system such as that of Immanuel Kant respond to an object that resists every available schema?

Within Kant's framework, recognition depends on the mediation of schemata, those procedural rules that allow concepts to be applied to sensory experience. Yet the platypus presents a case in which no adequate schema is readily available. Its features scatter across established categories without fully belonging to any of them, disrupting the coherence that schematism presupposes. The difficulty resembles earlier philosophical encounters with anomalous creatures, where classification falters because the object exceeds the limits of genus and species. The platypus thus exposes a structural vulnerability in cognition: the dependence of recognition on prior frameworks that may fail when confronted with radical novelty. Kant's analysis of judgment provides a pathway through this impasse. Determinant judgment operates by subsuming particulars under pre-existing rules, but in the case of the platypus, no such rule suffices. Reflective judgment, by contrast, proceeds in the opposite direction, seeking to discover or construct a rule capable of organizing the given particular. Faced with the platypus, cognition must shift from application to invention, generating a new conceptual arrangement that can accommodate its features. Understanding becomes creative rather than merely classificatory, producing order where none previously existed.

This movement toward conceptual invention aligns with the logic later articulated by Charles Sanders Peirce, who described the formation of explanatory hypotheses as abduction. The mind, confronted with an unfamiliar object, assembles elements of prior knowledge into a provisional rule that accounts for the observed features. Such a rule is not guaranteed to be correct; it is an initial guess, subject to revision as further observations accumulate. In this sense, the recognition of the platypus would not involve forcing it into an existing category but constructing a new one through iterative adjustment. The process reveals that cognition advances not by strict adherence to established systems but by their transformation. Kant's reflections on natural organisms deepen this perspective by introducing the idea of purposiveness. In works such as *Critique of Judgment*, he argues that living beings must be understood as if they were organized for an end, even if their ultimate purpose remains inaccessible. The platypus, initially perceived as a contradiction, becomes intelligible when approached as an integrated organism whose features serve functional roles within its environment. What appeared as incoherence reveals itself as adaptation: its morphology, once puzzling, corresponds to the demands of its ecological niche. The apparent anomaly dissolves into a higher-order coherence, accessible through reflective judgment.

This transformation underscores a crucial insight: the unfamiliar does not remain unintelligible but compels the expansion of intelligibility itself. Over time, the platypus ceases to be an exception and becomes a stable element within biological knowledge, its features no longer contradictory but characteristic. The initial resistance it posed to classification becomes the very means by which classification evolves. The system does not collapse under the weight of the anomaly; it reorganizes itself to include it. The parallel between natural and artificial objects further illuminates this process. Just as a crafted object reveals its purpose through its structure, so too does the organism disclose a form of internal organization that invites interpretation. Yet unlike artifacts, whose purposes are externally imposed, natural beings appear as ends in themselves, their coherence arising from within. The platypus exemplifies this autonomy, demonstrating that what initially seems arbitrary may embody a deeper necessity that only becomes visible through sustained inquiry. The convergence of Kantian reflection and Peircean abduction reveals a shared commitment to understanding as an evolving process. Both perspectives reject the notion that knowledge consists in the mere application of fixed categories, emphasizing instead the role of invention, adjustment, and reinterpretation. The platypus stands at the intersection of these approaches, illustrating how cognition responds to what exceeds its expectations. It is not simply an object to be classified but a challenge that forces thought to rethink its own procedures.



What ultimately emerges is a conception of knowledge as open-ended, shaped by encounters that disrupt established order. The platypus, far from being a marginal curiosity, becomes a central figure in this dynamic, embodying the moment when thought confronts its limits and transforms them into possibilities. Through such encounters, cognition reveals its true nature: not a static system of categories, but a living process capable of adapting to the richness and unpredictability of the world.

*Eco, U. (1999) Kant and the Platypus: Essays on Language and Cognition. London: Harcourt Brace.*

### ***The Pact of Reference: How Words Find Their Objects***

In the exploratory essays of *Kant and the Platypus: Essays on Language and Cognition*, Umberto Eco reconsiders the act of referring not as a fixed relation between words and things, but as a negotiated practice sustained by implicit agreements between speakers. The question is no longer how language mirrors reality, but how individuals succeed—often precariously—in aligning their intentions so that a term points to something rather than nothing. Reference, in this sense, is not an inherent property of expressions but an achievement, dependent on context, cooperation, and shared assumptions.

This perspective echoes the insight of P. F. Strawson, who argued that expressions do not refer by themselves; rather, speakers use them to perform acts of reference. Meaning provides the general conditions for such use, but it does not guarantee success. To refer is to designate a particular entity within a given situation, whether a person, an object, or an event. Statements that identify a specific instance—such as pointing to an individual creature or recalling a historical occurrence—operate differently from those that merely describe general properties. The distinction reveals that reference requires more than linguistic competence; it demands the coordination of attention, intention, and context. At the heart of this coordination lies the problem of individuality. To refer is to single out something as this rather than that, invoking what medieval philosophy termed *haecceitas*, the irreducible thisness of an entity. When one speaks of a particular person, one does not refer to an abstract essence but to a concrete existence situated in space and time. Even when objects appear indistinguishable, context allows them to be individuated, as position, relation, or circumstance confers specificity. Reference thus depends on the capacity to anchor language in the singularity of experience, transforming general terms into pointers toward unique occurrences.

Yet this anchoring is never purely objective. It unfolds through a process of negotiation, where speakers must align their interpretations to ensure that they are referring to the same thing. Communication about unfamiliar entities illustrates this dynamic vividly. When a community encounters something unknown, descriptions are offered to establish a provisional framework for recognition. These descriptions function as content types, guiding others in identifying the referent even before direct experience confirms it. The act of referring becomes iterative, requiring verification and adjustment as participants test whether their understandings coincide. This negotiation reveals the contractual dimension of language. Speakers rely on mutual trust, assuming that their interlocutors share enough background knowledge and interpretive conventions to make reference possible. When a term is introduced, its acceptance depends not only on its definition but on the willingness of others to adopt it within a shared framework. Even in cases where the referent is obscure or unfamiliar, communication proceeds on the assumption that clarification can be achieved. This trust sustains the process, allowing language to function despite its inherent indeterminacy.

The fragility of this contract becomes apparent in situations where reference is uncertain or even fictitious. The introduction of an unfamiliar term may prompt participants to construct a provisional understanding, attributing properties and testing their validity through dialogue. Even when it is revealed that no real referent exists, the term may continue to function within the discourse, now designating an imagined entity rather than a real one. This persistence demonstrates that reference does not depend solely on the existence of an object but on the coherence of the interpretive framework that sustains it. Meaning can stabilize around absence as well as presence, provided the participants maintain the agreement that gives it structure. Philosophical theories that emphasize rigid designation attempt to secure reference by positing stable links between names and their referents. Proper names, in this view, designate specific individuals independently of descriptive content, anchored by an initial act of naming that establishes a causal chain. While this model accounts for the persistence of reference across contexts, it abstracts from the practical conditions under which reference is achieved. In everyday language, the connection between words and things is rarely so secure, relying instead on a mixture of description, context, and shared understanding. The rigidity of designation proves to be an idealization, useful for analysis but insufficient to capture the fluidity of actual communication.

Attempts to ground reference in an external guarantee, whether through a hypothetical omniscient perspective or through perfectly fixed systems of identification, highlight the desire for certainty in a domain characterized by contingency. Such models imagine a world in which every term corresponds unambiguously to its referent, eliminating the need for negotiation. Yet ordinary language operates without such guarantees, functioning through continuous adjustment and reinterpretation. Reference remains a pragmatic activity, shaped by the interplay of intention, context, and mutual recognition. What emerges from this analysis is a conception of referring as a social practice rather than a mechanical operation. Words do not attach themselves to things; they are used by speakers who must coordinate their perspectives to achieve understanding. This coordination is never complete or final, but it is sufficient to sustain communication. The contract underlying reference is implicit, flexible, and constantly renegotiated, reflecting the dynamic nature of language itself. In this ongoing process, meaning and reference are not given but constructed, maintained through the collaborative effort of those who speak and those who listen.

*Eco, U. (1999) Kant and the Platypus: Essays on Language and Cognition. London: Harcourt Brace.*

### ***The Authority of Meaning: From Divine Certainty to Communal Intention***

In the pragmatic reflections on reference developed in *Kant and the Platypus: Essays on Language and Cognition*, Umberto Eco shifts the ground of objectivity away from metaphysical guarantees and toward the negotiated authority of communities. The question is how reference can remain stable without appealing to an absolute foundation, a “Divine Mind” that fixes meanings once and for all. The proposed answer lies in a weaker ontology, where the correctness of reference depends on alignment with the intentions of a community—more precisely, with those recognized as its most reliable interpreters. To refer successfully is to adopt, at least provisionally, the interpretive habits sanctioned by shared knowledge, even while acknowledging their revisability.

This move does not eliminate uncertainty but redistributes it. If reference once depended on an infallible external order, it now relies on the fallible yet authoritative consensus of experts. To speak of water as H<sub>2</sub>O is not to invoke an immutable truth guaranteed beyond all doubt, but to participate in a stabilized agreement maintained by scientific practice. This agreement can change,

but its provisional stability is sufficient to sustain communication. The difficulty lies in knowing whether one's usage truly coincides with that of the community. The solution is not epistemic certainty but a pragmatic decision: to trust the community's standards and to orient one's language accordingly. Reference becomes an act of alignment rather than discovery. This alignment depends on the recognition of authority, which itself is socially constructed. The distinction between a credible expert and an unreliable source is not grounded in ontology but in collective validation. One figure may be trusted because institutions and traditions support that trust, while another remains marginal despite making similar claims. Communication thus presupposes an implicit hierarchy of credibility, where speakers rely on shared assumptions about who is entitled to define meanings. This reliance is not absolute; it is statistical, grounded in probabilities rather than certainties, and open to challenge. Yet without it, the coordination necessary for reference would collapse.

The role of negotiation becomes particularly evident when reference is uncertain or contested. When a statement conflicts with established knowledge, interlocutors must determine whether the discrepancy arises from error, alternative usage, or a deeper disagreement. This process involves interpretive charity, the willingness to assume coherence and to seek clarification rather than immediate rejection. Through such negotiation, speakers attempt to restore alignment, adjusting their interpretations until a shared reference is achieved or its impossibility becomes clear. Reference is thus maintained not by rigid adherence to fixed meanings but by the continuous effort to reconcile divergent perspectives. Collective decisions further illustrate this dynamic. When a group must act on the basis of a shared term, it becomes necessary to define its scope with sufficient precision to avoid error. Agreement on what counts as an instance of the term ensures that actions based on it are coherent and effective. This agreement is not merely linguistic but practical, linking words to consequences in the world. The process reveals that reference is not an isolated act but part of a broader coordination of behavior, where shared understanding enables collective action.

Misunderstandings arising from multiple names for the same entity highlight another dimension of this negotiation. When different linguistic labels refer to the same object, the failure to recognize their equivalence can produce apparent contradictions. Resolving such cases requires not only knowledge but dialogue, as speakers must establish the identity underlying divergent expressions. The act of referring thus involves more than pointing; it requires situating terms within a network of relations that make their reference intelligible. This relational aspect extends beyond empirical entities to fictional and cultural constructs. Characters and narratives acquire stable referential identities through shared traditions, even when their details vary across versions. The recognition of such entities depends on a common interpretive background, a collective understanding that allows reference to function despite the absence of a single authoritative source. Here again, reference is sustained by agreement, not by direct correspondence to an independent reality. What emerges from this analysis is a shift from ontology to pragmatics. Reference is no longer grounded in an unchanging structure of being but in the practices through which communities establish and maintain meaning. Rigid designation, with its emphasis on fixed links between names and objects, provides only an initial approximation of this process. In actual communication, reference unfolds through interaction, adjustment, and mutual recognition. It is a contract, not a given, sustained by trust and open to revision.

This contractual model does not undermine objectivity but redefines it. Objectivity becomes the outcome of shared practices rather than their presupposition, a stability achieved through collective agreement rather than imposed from outside. The success of reference depends on the ability of

individuals to participate in these practices, aligning their intentions with those of the community while remaining responsive to new information. In this ongoing negotiation, meaning is both constrained and flexible, anchored in consensus yet capable of transformation.

*Eco, U. (1999) Kant and the Platypus: Essays on Language and Cognition. London: Harcourt Brace.*

### ***The Voice That Thinks: Verbal Thought as the Engine of Learning***

In the pedagogical study of language development presented by Marilyn Buckley in *The Development of Verbal Thinking and Its Implications for Teaching*, language appears not as a secondary skill but as the very medium through which thought takes shape. From the first cry of the newborn—already structured by rhythm and intonation—to the complex articulations of adulthood, human experience unfolds along linguistic pathways. Consciousness itself emerges as a form of verbal orientation, where meaning is not merely expressed through language but constituted within it.

The origins of this process lie in the earliest stages of life, where the infant engages with language not as a system to be learned but as an environment to be inhabited. During the first year, as the brain rapidly develops, the child absorbs patterns of speech through listening, internalizing the sounds and structures that will later enable expression. This acquisition does not proceed through deliberate analysis but through an inherent capacity for pattern recognition and adaptation. As Noam Chomsky suggested, the child effectively constructs a grammar from exposure, transforming fragments of speech into a coherent system without conscious instruction. Language learning thus reveals an underlying intelligence that operates prior to formal reasoning, shaping the conditions under which thought becomes possible. The stage of babbling illustrates this generative capacity in its most immediate form. Here, the child experiments with sound, producing sequences that have no fixed meaning but serve as rehearsals for future communication. Jean Piaget interpreted this activity as egocentric play, while Ruth Weir documented its creative and exploratory character. In this phase, language is not yet a tool for communication but a field of experimentation, where the child discovers the possibilities of articulation. The significance of this stage lies not in its outcomes but in its process: learning begins with unstructured engagement, driven by curiosity and intrinsic motivation rather than external instruction.

As development progresses, language assumes a more explicit cognitive role. Children begin to use speech to guide their actions, narrating their activities and organizing their experiences through words. Piaget described this as egocentric speech, suggesting that it reflects a limited awareness of others' perspectives. Lev Vygotsky, however, reinterpreted it as a crucial stage in cognitive development, arguing that such speech represents thinking in its audible form. Over time, this external dialogue becomes internalized, transforming into silent inner speech. Thought, in this view, is not separate from language but its continuation in a more condensed and abstract form, echoing the ancient idea that thinking is the mind speaking to itself. This transformation has profound implications for education. If thinking develops through language, then the suppression of verbal expression in the classroom undermines the very process it seeks to cultivate. Hilda Taba emphasized that teaching thinking must be the central aim of schooling, and that this requires fostering environments in which students actively use language to explore ideas. Learning becomes a dialogical process, where understanding emerges through interaction rather than passive reception. The classroom shifts from a space of silence and transmission to one of articulation and negotiation, where students test, refine, and expand their thoughts through speech.

Practical applications of this principle reveal the centrality of verbal engagement in learning. When students discuss problems, explain concepts, and summarize information aloud, they do more than communicate; they organize their thinking, making implicit structures explicit. Collaborative dialogue allows ideas to be challenged and clarified, while pre-writing discussions enable the formation of coherent arguments before they are fixed in text. Even listening, often overlooked, becomes an active component of verbal thinking, as comprehension depends on the ability to process and interpret spoken language. In each case, language functions as a cognitive tool, shaping how information is understood and retained. The broader significance of verbal thinking lies in its role in constructing knowledge itself. Through language, individuals not only describe the world but also structure their experience of it, forming categories, relationships, and narratives that guide perception and action. This process is inherently social, as language is shared and developed within communities. The individual's internal dialogue is thus rooted in collective practices, reflecting the interplay between personal cognition and cultural context.

What emerges from this perspective is a redefinition of learning as a linguistic activity. To think is to engage with language, to manipulate and reorganize it in ways that generate new meanings. The development of verbal thinking is therefore not an auxiliary aspect of education but its foundation. Encouraging students to speak, to question, and to articulate their ideas is not a distraction from learning but its realization. In the continuous movement from external speech to internal reflection, language becomes both the medium and the measure of thought, revealing that to cultivate understanding is, fundamentally, to cultivate the capacity to speak and to listen within oneself and with others.

*Buckley, M. (1970) The Development of Verbal Thinking and Its Implications for Teaching. Berkeley: University of California.*

### ***The Whisper that Thinks: Private Speech and the Birth of Inner Dialogue***

In the developmental analysis of private speech presented by Lawrence Kohlberg, together with Judy Yaeger and Else Hjertholm, the phenomenon of children speaking to themselves emerges not as a trivial habit but as a decisive stage in the formation of thought. What appears outwardly as fragmented or non-communicative speech reveals itself, upon closer examination, as a transitional structure through which external language is transformed into internal cognition. Private speech marks the threshold where communication ceases to be directed solely toward others and becomes an instrument for organizing the self.

The classical interpretation of this phenomenon begins with Jean Piaget, who identified such speech as egocentric, reflecting the child's inability to differentiate their own perspective from that of others. In this view, the child speaks without genuine communicative intent, assuming implicitly that others share their knowledge. The decline of this speech with age is therefore interpreted as a sign of maturation, as the child gradually acquires the capacity for socialized communication. Thought, in this framework, emerges through the overcoming of egocentrism, as language becomes oriented toward shared understanding. Against this interpretation, Lev Vygotsky proposes a fundamentally different account. Private speech, rather than being a residue of immaturity, serves a cognitive function: it guides action, organizes problem-solving, and regulates behavior. The child speaks not because they fail to communicate, but because they are learning to think. As development progresses, this audible speech does not disappear but becomes internalized, condensing into silent inner dialogue. Thought, in this sense, is not independent of language but its transformation, the internal echo of a once external exchange.

The perspective of George Herbert Mead further situates this process within the social formation of the self. For Mead, the capacity for inner speech arises from prior interaction, as the individual internalizes the voices of others and replays them within consciousness. The self becomes a site of dialogue, where perspectives shaped by social experience are reenacted and negotiated internally. Private speech thus reveals the continuity between communication and thought, showing that what appears as solitary reflection is rooted in collective interaction. Empirical investigations reinforce these theoretical insights by demonstrating that private speech follows a developmental trajectory shaped less by chronological age than by cognitive demands. Its frequency increases when tasks become difficult, indicating its role as a tool for self-guidance. Mental development, rather than biological maturation alone, determines its presence, suggesting that private speech responds to the need for cognitive organization. This responsiveness reveals its functional character: it emerges where thinking requires support and recedes as processes become internalized and automated.

The progression of private speech can be traced through a hierarchy that reflects its gradual transformation. It begins with playful repetition and vocal experimentation, where sound is explored without clear purpose. It then shifts toward commentary on actions and interactions with objects, marking the emergence of self-directed meaning. As complexity increases, the child begins to question and answer themselves, using language to structure reasoning. This evolves into explicit self-guidance, where speech directs problem-solving. Finally, the audible dimension diminishes, giving way to subvocal murmuring and ultimately to silent inner speech. Each stage represents a condensation of language, where external articulation is progressively internalized without losing its structural role. This developmental movement reveals that thought is not an isolated faculty that emerges independently of language, but a product of its transformation. The transition from external speech to internal dialogue illustrates how cognitive processes are shaped by communicative practices. Language provides the scaffolding through which thought is constructed, and private speech represents the moment in which this scaffolding is actively reorganized within the individual.

The implications of this perspective extend beyond developmental theory to the understanding of cognition itself. Private speech demonstrates that thinking is inherently dialogical, structured as an exchange even when no external interlocutor is present. The mind does not simply process information; it engages in a form of conversation, drawing on internalized voices and constructing responses. This dialogical structure persists in mature cognition, where silent reasoning retains the form of speech while shedding its audible expression. What ultimately emerges is a conception of thought as the internalization of communication, a process in which the boundaries between speaking and thinking dissolve. Private speech is not a marginal phenomenon but the visible trace of this transformation, revealing how language becomes mind. In the gradual silencing of the child's voice, one does not witness the disappearance of speech but its refinement into a more subtle and pervasive form. Thought itself becomes the continuation of language by other means, a silent dialogue that sustains the coherence of experience and the unity of the self.

*Kohlberg, L., Yaeger, J. and Hjertholm, E. (1968) Private Speech: Four Studies and a Review of Theories. Chicago: University of Chicago.*

### ***Two Minds, Two Circuits: The Neural Split Between Image and Word***

In the neurocognitive investigation conducted by Kazuo Nishimura in *Brain Activities of Visual Thinkers and Verbal Thinkers: A MEG Study*, thinking appears not as a uniform process but as a

differentiated activity distributed across distinct neural pathways. The study reveals that individuals vary systematically in how they organize thought: some rely predominantly on internally generated images, while others depend on linguistic structures. These differences are not merely subjective preferences but correspond to measurable patterns of brain activation, suggesting that cognition unfolds through multiple, partially independent modalities.

The experimental design isolates this divergence by distinguishing between strong visualizers and weak visualizers, the latter functioning as verbal thinkers. Using magnetoencephalography to capture neural dynamics, the study identifies a clear contrast in activation patterns. During tasks requiring mental imagery, strong visualizers exhibit heightened activity in the primary visual cortex, the region associated with processing visual perception. This finding indicates that for these individuals, thinking involves the reactivation of perceptual systems, as if the mind were projecting images internally. The boundary between seeing and imagining becomes porous, with cognition drawing directly on the mechanisms of perception. In contrast, weak visualizers demonstrate increased activation in Broca's area, a region traditionally linked to language production and processing. Even when engaged in tasks that could be approached visually, these individuals rely on verbal strategies, translating experience into linguistic form. Thought, in this mode, proceeds through articulation rather than imagery, constructing sequences of meaning through internalized speech. The brain thus reveals two complementary pathways: one grounded in sensory simulation, the other in symbolic representation.

The distinction is further illuminated by patterns of beta-band activity, which correlate with the intensity of engagement in these respective regions. Strong visualizers show pronounced oscillatory activity in the visual cortex, while verbal thinkers exhibit similar patterns in language-related areas. These oscillations reflect the dynamic coordination of neural processes, indicating that thinking is not localized in a single region but emerges from the synchronization of distributed networks. The modality of thought—visual or verbal—determines which networks become dominant during cognitive activity. These findings resonate with broader theoretical debates about the nature of representation in the mind. The contrast between image-based and language-based thinking reflects a longstanding question: whether cognition operates through pictorial representations, akin to mental images, or through symbolic structures resembling language. The study suggests that both forms coexist, but their relative prominence varies across individuals. Thought is not reducible to a single format; it adapts to the cognitive style of the thinker, drawing on different neural resources to achieve similar ends.

The implications extend beyond theoretical inquiry into practical domains such as education and problem-solving. If individuals differ in their preferred modes of thinking, then strategies for learning and communication must account for this variability. Visual thinkers may benefit from diagrams, spatial representations, and imagery-based techniques, while verbal thinkers may find greater clarity through explanation, narration, and symbolic reasoning. Recognizing these differences allows for a more nuanced approach to cognitive development, where methods are tailored to the underlying structure of thought rather than imposed uniformly. At a deeper level, the study challenges the assumption that thinking is a purely abstract activity detached from the body. The activation of perceptual and linguistic systems during cognitive tasks demonstrates that thought is rooted in the same neural mechanisms that support interaction with the world. Visual thinkers engage the systems of seeing, while verbal thinkers engage those of speaking, even in the absence of external stimuli. Cognition thus appears as a reconfiguration of embodied processes, where perception and language are redeployed internally to construct meaning.

What ultimately emerges is a pluralistic view of the mind, where different pathways converge on the common goal of understanding. The distinction between visual and verbal thinking does not divide cognition into isolated domains but reveals its flexibility, its capacity to operate through multiple forms. Thought becomes a space of translation, where images can become words and words can evoke images, depending on the demands of the task and the disposition of the thinker. In this interplay, the mind demonstrates its adaptability, shaping its processes according to both internal tendencies and external challenges.

*Nishimura, K. (2015) Brain Activities of Visual Thinkers and Verbal Thinkers: A MEG Study. Tokyo: Neuroscience Research Institute.*

### ***The Architecture of Minds: How Cognition Builds Society***

In the integrative perspective advanced in *Minds Make Societies*, Pascal Boyer reframes human society not as an opaque cultural construct but as a natural phenomenon grounded in the structure of the human mind. The central claim is disarmingly simple yet far-reaching: societies are not external entities that exist apart from individuals, but emergent outcomes of shared cognitive dispositions. To understand social systems, one must first understand the mechanisms of thought that generate, sustain, and transform them.

This approach challenges the historical tendency to treat social complexity as fundamentally mysterious. Earlier thinkers—from Ibn Khaldun to Montesquieu, Alexis de Tocqueville, Adam Smith, and Max Weber—offered profound insights into political order, economic exchange, and cultural variation. Yet their contributions, while foundational, did not converge into a cumulative science of society. The missing link, according to this framework, lies in the systematic integration of cognitive and evolutionary explanations, which reveal that social patterns are rooted in universal features of human psychology shaped by natural selection. From this standpoint, many enduring questions about human behavior acquire a new coherence. The persistence of false beliefs, for example, is not simply a failure of rationality but a consequence of cognitive systems designed for efficiency rather than accuracy. Minds are tuned to detect patterns, infer intentions, and construct coherent narratives, even at the cost of error. Similarly, political domination emerges not merely from historical contingencies but from evolved sensitivities to hierarchy, authority, and coalition dynamics. Individuals navigate complex social environments by tracking power relations, often aligning with dominant figures when it serves perceived interests or reduces uncertainty.

Ethnic identity, another powerful force in human societies, reflects the mind's tendency to categorize and form coalitions. Group membership becomes a heuristic for predicting behavior, fostering cooperation within groups while generating suspicion toward outsiders. Gender roles, likewise, cannot be understood solely as cultural impositions; they arise from the interaction between biological predispositions and social structures, producing patterns that vary across contexts yet exhibit recurring features. In each case, the apparent diversity of social forms masks an underlying regularity rooted in shared cognitive architecture. The paradox of human cooperation and conflict further illustrates this dynamic. Humans possess mechanisms that promote altruism, fairness, and collective action, yet these coexist with tendencies toward competition and self-interest. This duality reflects the adaptive challenges faced by our ancestors, where survival depended both on collaboration within groups and competition between them. Social norms and institutions emerge as attempts to regulate this tension, stabilizing cooperation while managing conflict. Justice and morality, often treated as abstract ideals, can thus be seen as products of cognitive systems that evaluate behavior, enforce norms, and sustain group cohesion.



Religion provides another revealing case. Far from being an anomaly, religious beliefs align with cognitive predispositions toward agency detection, narrative construction, and the attribution of intentionality. Supernatural agents are easily integrated into existing mental frameworks, offering explanations for events and reinforcing social norms. The ubiquity of religious systems across cultures suggests that they resonate with fundamental features of human cognition, serving both psychological and social functions. A key methodological insight of this approach is the necessity of estrangement: to understand society, one must view familiar practices as if they were strange. Everyday behaviors—forming families, participating in rituals, enforcing norms—appear natural precisely because they are deeply embedded in cognitive processes. By treating them as phenomena requiring explanation, one uncovers the mechanisms that sustain them. This perspective reveals that human societies, despite their complexity, operate according to principles that can be studied with the same rigor as other natural systems.

Central to these principles is the role of information. Human cognition depends on specialized detection systems that extract relevant signals from the environment, enabling individuals to interpret social cues such as gaze direction, emotional expression, and behavioral intent. These systems are highly attuned to social information, reflecting the importance of interaction in human evolution. The ability to infer others' mental states, coordinate actions, and anticipate behavior underlies the formation of stable groups and complex social structures. Evolutionary theory provides the broader framework within which these processes can be understood. While the specific forms of social organization vary across cultures, the cognitive mechanisms that generate them are universal. Differences in environment, history, and cultural transmission shape how these mechanisms are expressed, producing the diversity of societies observed worldwide. The study of society thus becomes an investigation into the interaction between invariant psychological dispositions and variable contextual conditions.

What ultimately emerges is a vision of society as a cognitive construction, continuously produced and reproduced through the operations of the mind. Social institutions, norms, and beliefs are not imposed from above but arise from the aggregation of individual interactions, each shaped by underlying mental processes. To understand society is therefore to trace these processes, to uncover the ways in which cognition organizes collective life. In this sense, the study of society converges with the study of thought, revealing that the structures of the social world are, at their core, reflections of the structures of the human mind.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***The Invisible Programs of the Mind: How Humans Learn Without Knowing***

In the evolutionary account presented in *Minds Make Societies*, Pascal Boyer argues that human learning is not a general-purpose capacity but the outcome of specialized mental systems designed to extract particular kinds of information from the environment. The more complex an organism becomes, the more refined its mechanisms for detecting and processing information must be. In humans, this results in a paradox: the ability to learn extensively depends on the presence of built-in structures that guide what is learned. Knowledge does not emerge from a blank slate but from a mind already equipped with expectations about the world.

This principle is most clearly illustrated in the development of language. From the earliest stages of life, infants display a sensitivity to human speech that cannot be reduced to passive exposure. Even before birth, they attune to the rhythms and patterns of the language surrounding them, and after birth, they begin to refine this sensitivity by filtering relevant sounds from background noise.

Babbling, often perceived as random vocal play, reveals a deeper structure: it is a systematic exploration constrained by the architecture of the vocal apparatus and guided by cognitive expectations. Infants initially produce a wide range of sounds, only to gradually restrict them to those meaningful within their linguistic environment. This process demonstrates that learning involves selective attention, where the mind highlights certain distinctions—such as phonetic contrasts—while ignoring others that carry no communicative significance. A similar pattern appears in the domain of moral cognition. Human beings do not simply learn moral rules through instruction; they possess intuitive systems that predispose them to interpret actions in terms of cooperation, fairness, and harm. Even in infancy, individuals respond differently to behaviors that facilitate or obstruct others, indicating that moral evaluation begins prior to explicit teaching. These responses are not abstract judgments but immediate reactions shaped by cognitive mechanisms attuned to social interaction. Moral understanding, therefore, arises from the interplay between these intuitive systems and the cultural contexts in which they operate. The mind does not passively receive moral norms; it actively constructs them by interpreting behavior through preexisting frameworks.

The study of atypical cases further clarifies the role of these systems. Individuals who lack the intuitive aversion to harmful behavior demonstrate that moral knowledge alone is insufficient to regulate action. They may understand the consequences of their behavior but fail to experience the emotional responses that typically guide moral judgment. This dissociation reveals that cognition is not a unified process but a constellation of specialized mechanisms, each contributing distinct elements to behavior. The absence or impairment of one system alters the overall structure of thought, highlighting the functional specificity of these cognitive components. Reproductive behavior offers another domain in which environmental cues interact with internal mechanisms to produce adaptive responses. Patterns of development, such as the timing of puberty or the formation of relationships, are influenced by early experiences that signal the reliability of social environments. These signals are not consciously interpreted but are processed by underlying systems that adjust behavior accordingly. The individual does not calculate strategies in an explicit sense; rather, motivations and preferences emerge that align with the perceived conditions of the environment. What appears as personal choice is, in many cases, the expression of deeper processes shaped by evolutionary pressures.

At the core of these phenomena are intuitive inference systems, which operate largely outside conscious awareness. These systems process information rapidly and automatically, generating conclusions that appear as immediate intuitions. Individuals are typically unaware of the computations that produce these judgments, experiencing only their outcomes. This opacity is not a limitation but a functional feature, allowing the mind to handle complex information efficiently without the burden of explicit reasoning. Conscious thought, in this framework, becomes a secondary process that interprets and sometimes revises the outputs of these underlying systems. Each inference system is highly specialized, focusing on particular domains such as language, morality, or social interaction. This specialization enables precision and efficiency, as the system is tuned to detect specific patterns relevant to its function. At the same time, it imposes limits, as each system operates within its own domain, often ignoring information that falls outside its scope. The mind, therefore, is not a general-purpose processor but a collection of targeted mechanisms, each evolved to solve recurrent problems faced by our ancestors.

Understanding these systems requires situating them within an evolutionary framework. The features of human cognition did not arise arbitrarily but as solutions to challenges related to survival and social coordination. The ability to acquire language, evaluate moral behavior, and

adapt reproductive strategies reflects the demands of living in complex social environments. These capacities are not learned from scratch but are guided by inherited structures that shape how learning occurs. Evolution provides the blueprint, while experience fills in the details. This perspective transforms the study of human behavior. Rather than seeking a single explanatory principle, it emphasizes the interaction between multiple systems, each contributing to the overall pattern of cognition. Language acquisition, moral reasoning, and social behavior are not isolated phenomena but interconnected expressions of underlying mechanisms. By examining how these systems operate and interact, one can begin to understand the diversity of human behavior as variations on a shared cognitive foundation.

What ultimately emerges is a vision of the mind as an adaptive interface between organism and environment, continuously extracting, organizing, and responding to information. Learning is not the accumulation of neutral data but the activation of systems designed to interpret specific aspects of the world. In this sense, human cognition is both constrained and empowered by its evolutionary heritage, capable of remarkable flexibility precisely because it is structured by deeply rooted mechanisms. Through these invisible programs, the mind constructs the patterns of behavior that, when aggregated, give rise to the complex realities of human societies.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***Against the Illusion of the Unified Mind: Why Humans Must Not Be Anthropomorphized***

In the methodological reflections of *Minds Make Societies*, Pascal Boyer advances a provocative rule: to understand human behavior scientifically, we must resist the temptation to interpret humans as if they were simple, unified agents. This injunction extends the earlier rejection of anthropomorphism in the natural sciences. Just as modern inquiry abandoned the notion that storms express anger or rivers possess intentions, so too must it abandon the intuitive picture of the human mind as a single, coherent entity directing action from within.

The persistence of anthropomorphism in the study of human behavior is not accidental. In everyday life, interpreting others as intentional agents with beliefs, desires, and plans is indispensable. It allows for coordination, moral judgment, and social interaction. Yet this intuitive psychology, while practical, becomes misleading when elevated to the status of explanation. It reduces complex processes to simplified narratives, masking the underlying mechanisms that generate behavior. What appears as deliberate choice often emerges from interactions among multiple systems, each operating according to its own principles. Research in cognitive science and neuroscience supports this view by revealing the distributed nature of mental processes. Rather than a centralized “pilot,” the mind consists of numerous semi-autonomous systems specialized for different tasks: language processing, threat detection, social evaluation, and more. These systems operate concurrently, sometimes reinforcing one another, sometimes producing conflicting outputs. The apparent unity of intention is thus an effect, not a cause—a narrative constructed after the fact to impose coherence on a fundamentally heterogeneous process.

The tendency to attribute unified beliefs illustrates the limitations of the anthropomorphic model. In ordinary discourse, beliefs are treated as stable entities stored within the mind, ready to guide action. Yet experimental evidence complicates this picture. Situations that trigger emotional or perceptual responses often lead individuals to behave in ways that contradict their explicit knowledge. A label indicating danger, for instance, can activate defensive reactions even when the individual knows there is no real threat. Such responses do not reflect a genuine belief in danger

but the activation of specialized systems tuned to particular cues. These systems operate independently of conscious reasoning, generating outputs that may conflict with other cognitive processes without being overridden by them. This dissociation reveals that what is commonly described as belief is not a singular state but a shorthand for the outputs of multiple interacting mechanisms. Each system processes information in its own format, often inaccessible to others. Rational analysis cannot easily modify the response of a system designed for rapid threat detection, because the latter operates under constraints that exclude broader contextual evaluation. The mind, therefore, does not contain a unified repository of beliefs but a network of processes whose outputs are integrated only imperfectly.

The philosopher Daniel Dennett captures this distinction through the contrast between the intentional stance and the design stance. The intentional stance interprets behavior in terms of goals and beliefs, providing a convenient framework for prediction and interaction. The design stance, by contrast, seeks to explain behavior by examining the mechanisms that produce it. While the former is indispensable in everyday contexts, the latter is essential for scientific understanding. To explain behavior is not to attribute intentions but to uncover the processes that generate them. Failure to adopt this perspective results in what can be described as cognition blindness: an inability to recognize the complexity underlying seemingly simple actions. Behaviors are then explained through narratives of conscious decision-making, obscuring the role of unconscious processes. For example, patterns of social or reproductive behavior may be described as deliberate strategies, when in fact they arise from the interaction of multiple systems responding to environmental cues. These systems shape preferences and motivations without requiring explicit calculation or awareness. The individual experiences the outcome as a choice, but the underlying process is far more intricate.

A more adequate framework for understanding human behavior must therefore abandon the search for a unified agent and instead focus on the architecture of the mind. This involves identifying the specific systems involved in processing different types of information and examining how their interactions produce observable outcomes. Such an approach does not deny the reality of intentions and beliefs but reinterprets them as emergent properties rather than fundamental causes. This shift has profound implications for the study of society. Social phenomena, often explained in terms of collective intentions or shared beliefs, can be reexamined as the aggregate effects of individual cognitive processes. By tracing these processes, one can uncover the mechanisms that generate patterns of behavior, revealing the interplay between individual cognition and collective structures. The apparent coherence of social systems thus reflects the coordination of multiple minds, each governed by its own internal dynamics.

What ultimately emerges is a more complex but more accurate picture of human cognition. The mind is not a single voice but a chorus, not a centralized authority but a distributed network. To understand it requires moving beyond the intuitions that guide everyday interaction and embracing a perspective that acknowledges its multiplicity. In doing so, one replaces the comforting simplicity of anthropomorphism with a deeper insight into the processes that shape thought and action.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***The Calculus of Belonging: How Minds Manufacture Group Conflict***

In the cognitive framework developed in *Minds Make Societies*, Pascal Boyer dismantles the familiar notion that human conflict stems from a primitive instinct of “tribalism.” What appears as

an irrational attachment to groups is, upon closer inspection, the outcome of sophisticated mental computations designed to manage alliances, cooperation, and competition. Human beings do not simply feel loyalty; they infer, calculate, and predict within social environments structured by coalitions. Group conflict is therefore not an anomaly but a byproduct of mechanisms that, in other contexts, make large-scale cooperation possible.

The striking feature of human societies lies in this dual capacity: the ability to coordinate action among vast numbers of individuals and the equally potent tendency to direct hostility toward other groups. Historical episodes—from ethnic violence to political domination—illustrate that group conflict is not occasional but recurrent. Yet labeling this phenomenon as “tribalism” explains little. It replaces inquiry with metaphor, suggesting an instinct where there is, in fact, a set of processes that can be analyzed. The task is not to name the behavior but to uncover the cognitive architecture that produces it. Modern nations and ethnic identities provide a revealing entry point into this architecture. While often presented as natural or ancient, these categories are largely constructed through historical processes—education systems, standardized languages, and shared narratives. Their power, however, cannot be explained solely by their construction. Individuals invest in these identities because they resonate with underlying cognitive systems that track affiliation, shared norms, and mutual expectations. Ethnicity becomes compelling not because it is primordial, but because it activates mechanisms designed to organize social cooperation.

At the core of these mechanisms is what may be called coalitional cognition. Humans possess specialized systems for identifying allies, predicting their behavior, and coordinating with them against potential rivals. These systems operate through the detection of cues—language, dress, rituals—that signal group membership. Once such cues are identified, the mind generates expectations of reciprocity: those within the group are assumed to cooperate, while those outside are treated with caution or suspicion. This process is not driven by blind preference but by inferred probabilities of benefit and risk. Experimental evidence demonstrates how readily these systems are engaged. Even minimal and arbitrary distinctions between individuals can produce in-group favoritism, as shown in studies where participants prefer members of their assigned group despite the absence of meaningful differences. This behavior reflects an implicit calculation: cooperation with those identified as similar is expected to yield returns. When this expectation is removed, the bias diminishes, revealing that group loyalty is contingent rather than absolute. It is a strategy, not an impulse.

The maintenance of alliances further depends on mechanisms for monitoring commitment and detecting defection. Individuals attend to signals that indicate loyalty, such as shared practices or costly displays of dedication. These signals function as guarantees, reducing uncertainty about others' behavior. At the same time, violations of group norms are met with punishment, reinforcing cohesion. Through these processes, groups achieve stability, transforming collections of individuals into coordinated units capable of collective action. Stereotypes and prejudices, often treated as primary causes of conflict, emerge within this framework as secondary phenomena. Rather than generating hostility, they frequently serve to justify and stabilize it. When groups compete, representations of the opposing group are shaped to emphasize threat, danger, or inferiority, aligning perception with the demands of coalition. Cognitive systems prioritize information relevant to competition, amplifying certain traits while ignoring others. What appears as irrational bias is thus structured by the logic of group dynamics.

Violence between groups, though often chaotic in appearance, follows patterns that reflect strategic reasoning. Escalation typically begins with ambiguous signals interpreted as threats, leading to cycles of retaliation. Acts of extreme violence function not only to harm but to signal

resolve, deterring opposition and enforcing compliance. These behaviors are not random but calibrated, shaped by expectations about the reactions of others. Even in their most destructive forms, they reveal the operation of cognitive systems attuned to cost, benefit, and signaling. The evolutionary origins of these systems lie in environments where survival depended on both cooperation within groups and competition between them. Early human societies required coordinated action for hunting, defense, and resource acquisition, while also facing threats from rival groups. Mechanisms that facilitated alliance formation and conflict management would have conferred significant advantages, becoming embedded in the architecture of the mind. Modern societies, despite their complexity, continue to operate under the influence of these inherited systems.

In contemporary contexts, these processes manifest in subtle ways. Individuals track the size and cohesion of groups, respond to markers of identity, and adjust their behavior accordingly. Diversity, while offering opportunities for cooperation, can also activate coalitional intuitions, influencing trust and interaction. These responses are not necessarily conscious; they arise from automatic systems that process social information continuously. The result is a dynamic interplay between individual cognition and collective structures, where perceptions and behaviors reinforce one another. Understanding group conflict, therefore, requires abandoning simplistic notions of instinctual tribalism and recognizing the role of cognitive processes in shaping social dynamics. Humans are not driven by an inherent urge to divide but by systems designed to navigate complex social environments. These systems, while adaptive in their original context, can produce conflict when applied to large-scale and heterogeneous societies. The challenge is not to eliminate these processes but to understand and manage them, aligning their operation with conditions that favor cooperation over hostility.

What ultimately emerges is a view of society as a product of minds in interaction, where patterns of conflict and cooperation reflect the underlying computations of individuals. Group identity, loyalty, and aggression are not primitive residues but active constructions, continuously generated by cognitive mechanisms. By tracing these mechanisms, one can begin to explain not only why conflicts arise but how they might be mitigated, transforming the study of society into an inquiry grounded in the nature of thought itself.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***The Usefulness of Falsehood: Why Minds Manufacture Junk Culture***

In the cognitive analysis advanced in *Minds Make Societies*, Pascal Boyer confronts a striking paradox: human beings possess highly efficient systems for processing information, yet they consistently generate, transmit, and defend beliefs that are patently false or useless. Episodes of mass panic—whether involving imagined conspiracies, supernatural threats, or collective delusions—are not aberrations but recurring features of human societies. The question is not why people occasionally err, but why such errors are so systematic, so contagious, and so persistent.

These phenomena reveal that information, in human cognition, is not valued solely for its truth. If the mind were optimized only for accuracy, such beliefs would be rapidly discarded. Instead, they proliferate, often gaining strength precisely because they provoke emotional and social reactions. The notion of “junk culture” captures this domain of beliefs that appear to lack practical value, yet continue to circulate with remarkable resilience. Like so-called nonfunctional elements in biological systems, these cultural forms may serve purposes not immediately visible at the level of explicit reasoning. The explanation lies in the architecture of the mind itself. Human cognition

is organized around domain-specific inference systems that prioritize certain kinds of information. These systems are tuned not to abstract truth but to relevance within specific contexts, particularly those involving survival and social interaction. From early development, individuals form expectations about objects, agents, and relationships, allowing them to navigate a complex environment efficiently. Yet these expectations, while adaptive, introduce biases. They guide attention toward certain patterns and away from others, shaping what is noticed, remembered, and transmitted.

One such bias is essentialism, the tendency to treat categories as fixed and meaningful. This facilitates the organization of knowledge but also supports erroneous generalizations. Similarly, systems designed to detect threats operate under conditions of uncertainty, favoring false positives over false negatives. It is more advantageous to react to a nonexistent danger than to ignore a real one. As a result, the mind is predisposed to amplify signals of potential harm, even when evidence is weak or absent. This predisposition creates fertile ground for the spread of alarming narratives. Rumors and collective delusions exploit these cognitive tendencies by focusing on threats that demand immediate attention. Stories involving hidden dangers, malevolent agents, or catastrophic outcomes engage systems that prioritize vigilance and rapid response. The emotional intensity of such narratives enhances their memorability and transmission, ensuring that they spread quickly through social networks. The content of the belief may be implausible, but its structure aligns with the mind's expectations about danger and agency.

Beyond their cognitive appeal, these beliefs perform social functions. They often carry moral implications, framing certain actors as villains and others as victims. This moralization transforms information into a tool for coalition-building. By endorsing and sharing such narratives, individuals signal their alignment with a group and their commitment to its values. Agreement becomes a marker of loyalty, while skepticism may be interpreted as betrayal. In this way, the spread of dubious information strengthens social bonds, even as it undermines factual accuracy. The persistence of these beliefs, even in the face of disconfirmation, reflects their role in maintaining group cohesion. When predictions fail or evidence contradicts established narratives, the response is not necessarily abandonment but reinforcement. Efforts to recruit new adherents intensify, as the expansion of the group provides validation for its shared beliefs. The content of the belief becomes secondary to its function as a marker of identity and solidarity.

This dynamic reveals a tension at the heart of human cognition. On the one hand, epistemic vigilance mechanisms exist to evaluate the reliability of information, enabling individuals to detect deception and error. On the other hand, social and emotional systems can override these mechanisms, prioritizing cohesion and alignment over accuracy. The mind is thus not a neutral processor of information but a system balancing multiple demands, where truth competes with other forms of utility. What emerges from this analysis is a redefinition of the role of information in human societies. Information is not merely a representation of reality but a resource for managing relationships, signaling commitment, and coordinating action. "Junk culture" is not a failure of cognition but a byproduct of its design, reflecting the interplay between cognitive biases and social imperatives. The spread of false beliefs, far from being inexplicable, follows from the very mechanisms that enable humans to learn, communicate, and cooperate.

Understanding this process does not eliminate the problem of misinformation, but it clarifies its origins. Efforts to address it must account for the cognitive and social functions that such beliefs serve, recognizing that their persistence is rooted in the structure of the mind. In this sense, the study of falsehood becomes inseparable from the study of thought itself, revealing that the

boundaries between knowledge and error are shaped not only by evidence but by the complex dynamics of human cognition and social life.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***The Arithmetic of Fairness: How Cooperation Constructs Justice***

In the evolutionary account developed in *Minds Make Societies*, Pascal Boyer reframes the enduring question of justice not as a purely moral abstraction but as a product of cognitive systems shaped by cooperation. Long before formal theories of equality or rights emerged, human minds were already equipped with mechanisms for evaluating fairness, detecting exploitation, and organizing exchange. What appears as ethical reflection is, at its core, an extension of these evolved capacities, refined through culture but anchored in deeper psychological structures.

Debates about inequality, distribution, and moral entitlement often seem modern, yet they echo earlier philosophical concerns, such as those articulated by Jean-Jacques Rousseau in his analysis of property and social disparity. The persistence of these questions suggests that they are not merely historical artifacts but expressions of enduring tensions within human cognition. Justice is not simply invented by societies; it emerges from the interaction between inherited mental dispositions and the complex environments in which they operate. At the center of this emergence lies the problem of cooperation. Human beings are capable of coordinating their actions on a scale unmatched by other species, engaging in collective endeavors that extend far beyond kinship ties. Everyday interactions—from mundane coordination to large-scale economic exchange—reveal a continuous negotiation of expectations, contributions, and rewards. Yet this cooperation presents a paradox: if individuals are driven by self-interest, why do they consistently act in ways that benefit others, sometimes at a personal cost?

The answer lies in the structure of cooperative cognition. Rather than opposing self-interest, cooperation is a strategy shaped by the anticipation of reciprocal benefits. Individuals assess not only immediate gains but also future interactions, reputational consequences, and the reliability of partners. This transforms cooperation into a dynamic system of mutual expectations, where fairness functions as a stabilizing principle. It ensures that participation remains advantageous, discouraging defection and sustaining collective action over time. Experimental evidence from economic games illustrates these mechanisms with clarity. When individuals are given the opportunity to divide resources, they rarely conform to the predictions of pure self-interest. Instead, they display a consistent tendency toward equitable distribution, even when anonymity removes the possibility of future interaction. This inclination toward fairness is not uniform but context-sensitive. When resources are perceived as earned rather than arbitrarily assigned, individuals adjust their expectations, favoring proportional rather than equal distribution. Such variations reveal that fairness is not a fixed rule but a flexible computation, responsive to perceived contributions and entitlements.

The maintenance of cooperation also depends on the capacity to enforce norms. Humans exhibit a willingness to punish those who violate expectations, even when doing so incurs personal costs. This phenomenon, often described as altruistic punishment, reflects the importance of maintaining trust within the group. By deterring defection, punishment reinforces the stability of cooperative systems, ensuring that individuals who benefit from collective efforts also adhere to their obligations. However, the application of punishment is itself governed by context, influenced by factors such as reputation, social proximity, and perceived intent. Beyond kinship, cooperation is further sustained by mechanisms of partner selection. Individuals are not bound to interact with



any given partner; they can choose collaborators based on past behavior and perceived reliability. This creates a competitive environment in which individuals strive to be recognized as trustworthy and fair. Reputation becomes a form of currency, shaping access to cooperative opportunities and influencing long-term success. In this sense, fairness is not merely a moral ideal but a strategic asset within a social marketplace.

These cognitive foundations extend into broader conceptions of justice, particularly in the domain of trade and distribution. In small-scale societies, fairness often takes the form of proportional sharing, aligning rewards with contributions. This intuition persists in modern contexts, informing debates about wages, taxation, and wealth inequality. However, as societies grow in complexity, these intuitions encounter new challenges. Large-scale markets operate through impersonal exchanges, where interactions are often anonymous and transient. This environment diverges from the conditions under which cooperative cognition evolved, creating a mismatch between intuitive expectations and economic realities. This mismatch gives rise to what might be described as competing moral intuitions. On one hand, individuals favor redistribution, reflecting the logic of communal sharing and mutual support. On the other hand, they emphasize ownership and proportional reward, aligning with the principles of contribution and entitlement. These intuitions coexist within the same cognitive framework, generating tensions that manifest in political and economic debates. The question of justice becomes a negotiation between these competing tendencies, each rooted in the same underlying architecture of cooperation.

The expansion of markets and trade has produced unprecedented levels of prosperity, yet it has also obscured the mechanisms through which wealth is generated. Human cognition, adapted to small-scale interactions, struggles to comprehend the distributed and indirect processes of modern economies. This limitation fosters misconceptions, such as the belief that wealth is inherently zero-sum or that profit necessarily implies exploitation. These beliefs, while intuitively compelling, reflect the constraints of cognitive systems rather than the structure of economic reality. What emerges from this analysis is a conception of justice grounded in the dynamics of cooperation. Fairness is not an external standard imposed upon society but an internal product of cognitive processes that regulate interaction. These processes enable the formation of stable groups, the coordination of collective action, and the distribution of resources in ways perceived as legitimate. At the same time, they generate tensions when applied to contexts that exceed their original scope, revealing the limits of intuitive reasoning in complex systems.

To understand justice, therefore, is to understand the mind that constructs it. The principles of fairness, cooperation, and trade are not arbitrary conventions but expressions of evolved mechanisms operating within specific environments. By tracing these mechanisms, one can see that the pursuit of justice is inseparable from the nature of human cognition itself—a continuous effort to align individual interests with collective stability, guided by systems that both enable and constrain our understanding of what it means to be fair.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***The Illusion of Understanding: Why Minds Misread Societies***

In the cognitive framework presented in *Minds Make Societies*, Pascal Boyer advances a disquieting proposition: although human beings are exquisitely adapted for life in complex social systems, they are not equipped to fully understand those systems. The capacity to participate in society does not entail the capacity to comprehend it. This divergence produces a peculiar

condition in which individuals navigate political, economic, and social structures effectively while simultaneously relying on deeply flawed intuitions about how these structures operate.

Human beings have long conceived of themselves as political agents, developing elaborate theories about governance, power, and collective organization. These theories, embedded in everyday discourse, create the impression of insight. Yet this impression may be deceptive. Just as one can function competently within a market without grasping its underlying mechanisms, individuals can engage in social coordination without possessing accurate models of societal processes. What appears as knowledge is often a form of intuitive approximation—useful for action but inadequate for explanation. This intuitive approximation is what has been described as folk sociology. It consists of spontaneous, culturally widespread assumptions about how groups, hierarchies, and institutions function. These assumptions are not the product of formal inquiry but arise naturally from cognitive systems designed to interpret social environments. They provide simplified frameworks that enable individuals to predict behavior, assign responsibility, and coordinate with others. However, their simplicity comes at the cost of accuracy. They transform complex, distributed processes into manageable but misleading representations.

In small-scale societies, such representations align more closely with reality. When groups are limited in size, interactions are direct, and decisions are made through transparent deliberation, individuals can observe the connections between actions and outcomes. Rules are negotiated collectively, and their effects are immediately visible. Under these conditions, intuitive models of society approximate actual processes, allowing for a relatively coherent understanding of collective life. The situation changes dramatically as societies expand. The transition from small bands to large, stratified populations introduces layers of abstraction, delegation, and indirect interaction. Coordination now depends on systems that extend beyond direct experience, involving institutions, markets, and bureaucracies that no individual can fully observe. While cognitive mechanisms continue to operate as if they were dealing with small groups, the environment they interpret has become vastly more complex. This mismatch generates systematic distortions in how societies are perceived.

One such distortion is the tendency to treat groups as unified agents. Nations, organizations, and communities are described as if they possessed intentions, desires, and beliefs analogous to those of individuals. This anthropomorphic projection simplifies communication, allowing complex phenomena to be discussed in familiar terms. However, it obscures the fact that collective outcomes emerge from the interaction of many individuals, each with their own motives and constraints. The apparent unity of the group is a cognitive construction, not an empirical reality. A related distortion concerns the nature of power. In intuitive reasoning, power is often conceptualized as a substance—something that can be possessed, accumulated, or transferred. This metaphor suggests a static and localized property, whereas in reality power is distributed across networks of relationships. It arises from patterns of interaction, coordination, and dependency, rather than from a singular source. By treating power as a tangible force, folk sociology masks the processes through which it is generated and maintained.

Equally significant is the reification of social facts. Norms, laws, and institutions are perceived as external and objective, existing independently of individual actions. This perception lends them an aura of permanence and inevitability. Yet these structures are sustained only through continuous participation and agreement. Their apparent solidity is a product of collective behavior, not an intrinsic property. When conditions change, they can dissolve or transform with surprising rapidity, revealing their underlying contingency. Despite these inaccuracies, folk sociology performs essential functions. It provides the cognitive scaffolding necessary for coordination,

enabling individuals to align their behavior with others. By simplifying complexity, it makes large-scale cooperation possible. The very features that render it misleading also make it indispensable. Without such simplifications, the cognitive burden of navigating social life would become unmanageable.

In modern political contexts, these intuitive models shape attitudes and decisions in profound ways. Political ideologies often present themselves as coherent systems, yet they are frequently composed of loosely connected elements bound together by underlying moral intuitions. Individuals select among these “packages” not through detailed analysis of policy interactions but through alignment with broader values such as fairness, loyalty, or authority. These values, in turn, reflect evolved sensitivities to different aspects of social life, including threat detection and group cohesion. Variations in political orientation can thus be understood as differences in the weighting of these cognitive priorities. Some individuals exhibit heightened sensitivity to potential threats, leading them to favor stability, hierarchy, and order. Others display greater openness to social variation and change, emphasizing inclusivity and harm avoidance. These tendencies are not arbitrary but emerge from the same underlying systems that govern cooperation and conflict.

The consequence of this cognitive architecture is a double-edged condition. On one side, it enables the remarkable coordination that defines human societies. On the other, it generates persistent misunderstandings about how these societies function. The same mechanisms that allow individuals to act collectively also limit their capacity to reflect accurately on collective processes. To grasp societies, therefore, requires more than participation. It demands a deliberate effort to move beyond intuitive models and to analyze the underlying interactions that produce social outcomes. This involves recognizing the limitations of folk sociology and replacing its metaphors with frameworks that capture the distributed, dynamic nature of social systems. Only by confronting these limitations can one begin to understand the structures that shape collective life, revealing that the greatest obstacle to comprehending society lies not in its complexity alone, but in the mind that seeks to interpret it.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***The Fiction of Authority: How Minds Invent the State as a Moral Agent***

In the cognitive perspective articulated in *Minds Make Societies*, Pascal Boyer reveals that one of the most persistent illusions in political life is the belief that the state behaves like a unified moral agent. Citizens debate what the state should do, what it intends, and whether it acts justly or unjustly, as if it were a single mind capable of coherent purpose. Yet this representation is not an accurate description of political reality but a projection generated by cognitive systems evolved for interpreting individual agents in small-scale interactions. The modern state, far from being a singular actor, is a dense network of institutions, incentives, and competing interests, whose outcomes cannot be reduced to a unified will.

Political disagreement about the proper role of the state—whether it should merely secure order or actively redistribute resources—appears to concern practical questions of efficiency and justice. However, beneath these debates lies a deeper cognitive structure. Individuals interpret the state through the same mechanisms used to evaluate partners in social exchange. They ask whether it is fair, whether it protects or exploits, whether it fulfills obligations or betrays trust. These judgments are not derived from a detailed understanding of institutional processes but from intuitive models that treat the state as if it possessed intentions analogous to those of a person. One of the most influential of these models conceives the state as a provider of insurance. In this view, political

institutions exist to buffer individuals against uncertainty, redistributing resources and mitigating risks that cannot be managed alone. This intuition resonates strongly because it mirrors cooperative arrangements in smaller communities, where mutual aid ensures survival. Historical examples demonstrate that such arrangements can emerge without centralized authority, as individuals form associations to share resources and responsibilities. Yet when these functions are absorbed by the state, they are reinterpreted not as collective practices but as the deliberate actions of an overarching agent.

This reinterpretation reflects a broader tendency within folk sociology to anthropomorphize collective entities. Groups, institutions, and systems are described as if they possessed unified intentions, simplifying the complexity of distributed interactions into a single narrative. The state becomes “the one who decides,” “the one who provides,” or “the one who fails,” even though each policy outcome results from the interplay of countless actors operating under diverse constraints. This simplification enables coordination and communication, but it also obscures the mechanisms through which political processes unfold. The consequences of this cognitive framing are particularly evident in moralized politics. Public debate often centers not on the empirical effectiveness of policies but on the perceived intentions behind them. A policy is judged as good if it appears benevolent, as unjust if it appears exploitative, regardless of its actual outcomes. This focus on intention reflects the logic of interpersonal exchange, where assessing a partner’s motives is crucial for sustaining cooperation. However, when applied to large-scale institutions, this logic becomes misleading. Intentions, even if sincerely held, do not reliably predict the effects of policies within complex systems.

Divergent political ideologies can be understood as variations within this shared cognitive framework. Some perspectives emphasize the benevolence of the state, viewing it as a mechanism for achieving fairness and protecting the vulnerable. Others highlight its potential for coercion and inefficiency, interpreting it as an entity prone to exploitation and overreach. Despite their opposition, both views rely on the same underlying assumption: that the state can be treated as an agent whose actions reflect coherent intentions. The disagreement concerns the character of this imagined agent, not the validity of the model itself. The limitations of this model become more apparent as societies scale. In small communities, where individuals directly observe the effects of collective decisions, the gap between intuitive representation and reality remains narrow. Deliberation is transparent, and the connection between action and outcome is visible. In large, complex societies, this transparency disappears. Decision-making is distributed across layers of institutions, and outcomes emerge from interactions that no individual can fully track. Yet cognitive systems continue to operate as if these processes were governed by a single will, generating persistent misunderstandings about the nature of political action.

Human reasoning, evolved for argumentation and persuasion within small groups, further complicates this picture. It excels at constructing justifications and evaluating opposing claims, but it does not necessarily produce accurate models of complex systems. Political discourse becomes a contest of narratives shaped by intuitive assumptions, where the image of the state as a moral agent provides a common reference point. This shared illusion facilitates debate while simultaneously constraining its depth, as participants rarely question the underlying model itself. To move beyond this limitation requires recognizing the cognitive origins of the illusion. The state is not an agent but an emergent phenomenon arising from interactions among individuals and institutions. Its apparent unity is a product of mental simplification, not an inherent property. Understanding this does not eliminate the need for political judgment, but it reframes it. Instead of evaluating the state as one would evaluate a person, one must analyze the structures and incentives

that shape its outcomes, acknowledging that these outcomes are not the expression of a singular intention but the result of distributed processes.

Such a shift in perspective reveals that many political disagreements are grounded not in conflicting evidence but in shared cognitive biases. By identifying these biases, it becomes possible to approach political questions with greater clarity, distinguishing between intuitive representations and actual mechanisms. The challenge is not merely to refine policies but to refine the models through which they are understood. Only by doing so can one begin to grasp the true nature of the systems that govern collective life, recognizing that the most powerful political agent—the state—is, in fact, a construction of the mind.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

### ***The Persistence of Meaning: How Minds and Communication Build Traditions***

In the concluding synthesis of *Minds Make Societies*, Pascal Boyer articulates a decisive claim: what distinguishes human societies is not merely the accumulation of knowledge, but the continuous reconstruction of shared representations through communication. Humans do not simply inhabit an environment of physical objects; they inhabit an environment of information—dense, layered, and perpetually reshaped. This informational environment is not static. It expands through interaction, and in doing so, generates the phenomena we recognize as traditions.

Traditions, in this framework, are not passive inheritances but dynamic configurations of mental representations stabilized across individuals. They exist not as fixed entities but as patterns sustained through repeated acts of communication and interpretation. From intimate customs within families to large-scale religious narratives, traditions persist because they are continually reconstructed by minds that do not replicate information mechanically but actively transform it. This reconstructive process introduces variation, yet it also produces stability where certain forms repeatedly converge. The apparent stability of traditions is paradoxical when one considers the nature of communication itself. Transmission is inherently prone to distortion: meanings shift, details are lost, interpretations diverge. Yet despite this entropy, certain ideas endure. The explanation lies not in fidelity of copying but in compatibility with cognitive structures. Information that aligns with existing mental predispositions is more likely to be retained, reconstructed, and retransmitted. Thus, stability is not the preservation of an original form but the repeated reemergence of forms shaped by the same cognitive constraints.

This process is governed by what may be described as cognitive attractors—patterns that recur because they fit the architecture of the mind. Human cognition favors certain types of representations: those that simplify complexity, highlight agency, or align with intuitive expectations about the world. Essentialist thinking, for instance, organizes both biological and social categories by attributing stable, underlying properties. Similarly, narratives that assign intentional agents to events—whether human or supernatural—resonate because they engage systems designed to interpret action and intention. These attractors do not dictate specific cultural forms but constrain the range of possibilities, ensuring that certain themes and structures appear across diverse societies. At the same time, these attractors operate within local contexts, producing variation alongside universality. While many cultures share a tendency to attribute misfortune to hidden agents, the identity of those agents varies—spirits, ancestors, or other entities—reflecting environmental and historical conditions. The interplay between universal cognitive biases and local influences generates the diversity of traditions without undermining their underlying regularities. What appears as cultural difference is often variation within a shared cognitive space.

Central to this process is the nature of communication itself. Human communication does not consist in the transfer of identical mental contents from one mind to another. It is an inferential process in which listeners reconstruct meaning by interpreting the intentions of speakers. Each act of communication involves a negotiation between what is expressed and what is inferred, shaped by prior knowledge and contextual cues. Meaning is not transmitted; it is rebuilt. This reconstruction introduces variability, but it also allows for refinement, as individuals adapt and sometimes improve upon the information they receive. Different domains of culture reveal distinct patterns of transmission, reflecting the specialized cognitive systems involved. Social norms, for example, are acquired implicitly through observation and interaction, often without explicit instruction. They are enforced through expectations and sanctions, maintaining stability without conscious articulation. By contrast, narratives and bodies of knowledge are transmitted explicitly, through teaching and deliberate learning, allowing for greater precision and preservation. Technological skills occupy an intermediate position, combining observation, imitation, and practice, enabling cumulative innovation across generations. These variations demonstrate that cultural transmission cannot be reduced to a single mechanism but involves multiple processes tailored to different kinds of information.

The cumulative character of human culture, particularly evident in technological development, underscores the uniqueness of this system. Unlike other species, humans build upon previous knowledge through collaboration, specialization, and external storage of information, such as writing. These developments do not require fundamental changes in cognitive architecture; they emerge from the interaction of existing capacities with new social arrangements. The result is an exponential expansion of informational environments, where each generation inherits not only knowledge but the means to extend it further. This perspective challenges the conventional distinction between nature and culture. The separation reflects an intuitive categorization rather than an empirical reality. Cultural phenomena are not independent of biological foundations, nor are biological processes untouched by cultural influence. Human behavior arises from the continuous interaction between evolved cognitive systems and socially transmitted information. Traditions, therefore, are neither purely natural nor purely cultural; they are products of their convergence.

A scientific understanding of societies must begin by abandoning simplistic dichotomies and embracing this complexity. It requires integrating insights from multiple disciplines, recognizing that no single perspective can capture the full range of processes involved. Cognitive psychology, evolutionary biology, anthropology, and related fields each illuminate aspects of the same phenomenon, contributing to a more comprehensive account of how traditions emerge and persist. What ultimately emerges is a vision of culture as an ongoing process rather than a fixed inheritance. Traditions are not relics preserved intact across time but dynamic patterns sustained through countless acts of reconstruction. They persist not because they are copied faithfully, but because they are continually re-created by minds shaped to find them meaningful. In this sense, the durability of traditions reflects not the stability of information but the stability of the cognitive systems that produce it. The human world, then, is not built solely of material structures but of shared representations maintained through communication. These representations evolve, adapt, and sometimes disappear, yet the processes that generate them remain constant. To understand traditions is to understand this interplay between cognition and communication—a process through which human societies continually produce the very environment in which they exist.

*Boyer, P. (2018) Minds Make Societies. New Haven: Yale University Press.*

## 2. RATIONALITY

### *The Wound of Insight: How Pain Reveals the Architecture of Irrational Thought*

In Dan Ariely's *Predictably Irrational: The Hidden Forces That Shape Our Decisions*, the investigation of human decision-making emerges not from abstract theorizing but from lived rupture, where the body becomes the first laboratory and suffering the first method of inquiry. The central claim unfolds quietly yet persistently: what we assume to be rational choice is in fact shaped by hidden forces that operate beneath awareness, structuring behavior in ways both systematic and profoundly misguided. Everyday contradictions—abandoned diets, unnecessary purchases, the strange efficacy of expensive medicine over identical cheaper alternatives, or the fleeting moral clarity induced by ethical reminders—are not anomalies but symptoms of a deeper cognitive order, one governed by patterns that defy logic while remaining remarkably consistent. The author's project is not merely to expose these inconsistencies but to render them intelligible, to show that irrationality is not chaos but structure misrecognized.

The origin of this insight lies in an accident that interrupts the continuity of ordinary life and transforms the subject into an observer of human conduct. Severe injury, prolonged isolation, and the slow reconstruction of the body produce a distancing effect: the familiar becomes strange, and behavior once taken for granted appears as a sequence of questions rather than answers. Why do desires attach themselves to one object and not another? Why are institutional routines organized around efficiency for the system rather than experience for the individual? What motivates action when intention alone fails to account for it? In this enforced distance, cognition becomes reflective rather than automatic, and recognition emerges not as passive perception but as an active reconstruction of meaning. Nowhere is this more evident than in the experience of pain, where the discrepancy between assumption and reality becomes impossible to ignore. Medical practice, guided by the belief that shorter, more intense suffering is preferable to prolonged discomfort, reveals itself to be grounded not in the lived experience of the patient but in an abstract model of efficiency. Yet the temporal structure of pain—the anticipation that precedes it, the fluctuations within it, and the relief that follows—reshapes its meaning entirely. Pain is not a singular quantity to be minimized but a dynamic process interpreted through expectation and memory. The failure to recognize this reveals a broader cognitive limitation: even expertise, when unexamined, reproduces systematic errors. From this realization emerges a shift from personal reflection to scientific inquiry, where questions born of experience are subjected to empirical testing. The encounter with experimental science introduces a new discipline of thought, one that transforms intuition into hypothesis and error into method. Failure itself becomes instructive, not as a negation of knowledge but as its condition.

Through experimentation, behavior is no longer approached as a collection of isolated acts but as a system governed by underlying principles. This transition marks the emergence of a broader framework in which irrationality is not dismissed but analyzed, revealing that human beings do not simply deviate randomly from rationality but do so in predictable ways. This predictability becomes the foundation of behavioral economics, a field that challenges the classical assumption that individuals act as perfectly rational agents optimizing their choices. Instead, it demonstrates that decisions are shaped by context, framing, expectation, and a range of cognitive biases that persist even in the presence of knowledge and experience. The idealized figure of the rational actor dissolves, replaced by a more complex being whose reasoning is bounded, whose preferences are unstable, and whose judgments are influenced by forces often invisible to consciousness. Recognition, in this sense, becomes a critical act: to recognize one's own irrationality is not to

eliminate it but to begin to understand its structure. Experiments serve as the primary instrument of this recognition, isolating specific variables within the complexity of human behavior and rendering them observable. Like flashes of light interrupting darkness, they reveal patterns otherwise concealed by the continuity of everyday life. Through them, phenomena such as procrastination, impulsive consumption, moral inconsistency, and the perception of pain are not merely described but explained, each linked to mechanisms that operate across contexts. These insights extend beyond the laboratory, offering implications for economic systems, institutional design, and personal decision-making. They suggest that many societal problems—from healthcare inefficiencies to corporate misconduct—are not solely the result of flawed intentions but of misunderstood cognitive processes.

To understand these processes is to open the possibility of intervention, not by appealing to ideal rationality but by designing environments that account for human limitations. The philosophical implication is decisive: rationality is not the natural state from which we occasionally fall, but an aspiration constructed within a framework of constraints. Human beings are not defective versions of a rational ideal but coherent systems operating according to principles that diverge from classical logic. Cognition, therefore, is not merely the capacity to process information but the site where interpretation, bias, and expectation converge. Recognition is the moment in which this convergence becomes visible, where the subject becomes aware not only of the world but of the structures through which the world is understood. In this sense, the study of irrationality is not a critique of human weakness but an exploration of human form, revealing that what appears as error is often the expression of deeper regularities. To engage with these regularities is to move toward a more reflective mode of existence, one in which decisions are not assumed to be self-evident but are examined as products of hidden forces. The task is not to eliminate irrationality but to recognize it, to transform it from an invisible determinant into a visible condition of thought, and in doing so, to reshape the possibilities of action itself.

*Ariely, D. (2008) Predictably Irrational: The Hidden Forces That Shape Our Decisions. New York: HarperCollins.*

### ***The Architecture of Comparison: How Relativity Manufactures Choice***

In Dan Ariely's *Predictably Irrational: The Hidden Forces That Shape Our Decisions*, decision-making is revealed not as an encounter with objective value but as a negotiation with context, where judgment emerges through comparison rather than intrinsic evaluation. The illusion of choice begins with a simple observation: human beings lack an internal scale capable of measuring absolute worth. Instead, they construct value relationally, positioning one option against another in order to render it intelligible. What appears as preference is often nothing more than contrast stabilized into decision. This becomes evident in the structured presentation of alternatives, where the introduction of a strategically inferior option transforms the entire field of perception. The presence of such an option does not aim to be chosen; its function is comparative, serving as a silent reference point that elevates another choice into apparent superiority. In this way, cognition does not discover value but produces it through alignment, turning relativity into the hidden architecture of decision.

The mechanism operates with remarkable subtlety. Faced with multiple options, the mind gravitates toward those that are easily comparable, privileging clarity over complexity. When two alternatives differ across multiple dimensions, evaluation becomes cognitively demanding; but when one option clearly dominates another along a shared dimension, the decision appears self-



evident. This asymmetry creates what is known as the decoy effect, where an inferior alternative amplifies the attractiveness of a neighboring option without ever being selected itself. The decoy is not noise but structure, an invisible guide that channels choice by simplifying comparison. In this sense, rationality is not violated but redirected, operating within constraints that favor coherence over accuracy. The implications extend beyond isolated decisions into the broader organization of preference. Context does not merely influence choice; it constitutes it. Whether selecting consumer goods, navigating institutional offerings, or imagining life trajectories, individuals rely on surrounding options to define what is desirable. The so-called middle choice emerges not as a balanced evaluation but as a refuge from uncertainty, a position stabilized by the presence of extremes. Here, moderation is not a virtue but a cognitive shortcut, a way of resolving ambiguity through spatial positioning within a set. The structure of the set itself becomes decisive, transforming arbitrary arrangements into meaningful hierarchies. This logic is not confined to markets but permeates everyday life, where decisions are continuously shaped by the availability of comparable alternatives. Even when individuals believe themselves to be acting freely, their choices are often guided by invisible anchors embedded in the environment. The arrangement of options, the framing of differences, and the introduction of asymmetries all function as silent determinants, shaping outcomes without requiring explicit persuasion.

What appears as autonomy is thus entangled with design, revealing that freedom of choice is inseparable from the architecture within which it is exercised. Yet relativity does not only guide consumption; it also structures emotion. The same comparative mechanism that simplifies decision-making generates dissatisfaction when applied to the self. Envy emerges not from absolute deprivation but from relative positioning, as individuals measure their circumstances against those of others. Success becomes unstable, perpetually redefined by shifting reference points. The disclosure of information intended to promote fairness can paradoxically intensify competition, as visibility transforms private evaluation into public comparison. In this way, relativity extends its influence from the marketplace into the domain of identity, where recognition is mediated by comparison rather than grounded in intrinsic worth. To confront this condition is not to eliminate relativity but to become aware of its operations. The possibility of resistance lies in the deliberate reconfiguration of comparison, in the selection of reference points that do not distort judgment or erode satisfaction.

By expanding the frame of evaluation, individuals can disrupt the narrow alignments that produce misguided choices, reintroducing plurality into decision-making. Simplification, in this context, becomes not a reduction of options but a reduction of unnecessary comparisons, allowing value to emerge without constant recalibration against irrelevant alternatives. The task is not to escape comparison entirely, for it is constitutive of cognition, but to recognize its limits and its power. In doing so, decision-making can shift from passive reaction to active construction, transforming relativity from an unseen constraint into a visible condition of thought.

*Ariely, D. (2008) Predictably Irrational: The Hidden Forces That Shape Our Decisions. New York: HarperCollins.*

### ***The Collapse of Reason: When Markets Reveal the Psychology They Deny***

In Dan Ariely's *Predictably Irrational: The Hidden Forces That Shape Our Decisions*, financial crises emerge not merely as economic failures but as moments of cognitive exposure, where the illusion of rational order dissolves and reveals the psychological mechanisms that have always governed decision-making beneath the surface. The collapse of the subprime mortgage system

does not stand as an isolated anomaly but as a structural consequence of a model that systematically misrepresents human behavior. For decades, economic theory rested on the assumption that individuals act as rational agents, calculating risks and optimizing outcomes with precision. Yet the unfolding of crises—from the bursting of speculative bubbles to the implosion of complex financial systems—demonstrates that markets are not governed by detached logic but by patterns of belief, misjudgment, and collective illusion. The architecture of the crisis was built upon instruments designed to distribute risk while concealing it. Mortgage-backed securities and their derivatives transformed individual debts into abstract financial products, severing the connection between decision and consequence.

When the underlying assumptions failed, the system did not correct itself but accelerated its own disintegration, exposing the fragility of structures that relied on the myth of rational foresight. The sequence of institutional collapses and emergency interventions revealed not only systemic vulnerability but also the misplaced trust in expertise presumed to be grounded in objective calculation. What appeared as competence was often the repetition of shared assumptions, unchallenged precisely because they were widely accepted. This failure invites a reconsideration of the foundations of economic thought. Earlier traditions had already acknowledged the role of emotion, morality, and social influence in shaping behavior, but these insights were gradually overshadowed by the pursuit of mathematical elegance. The simplification of human action into rational choice produced models that were internally coherent yet externally inadequate, incapable of accounting for the persistent deviations observed in real-world behavior. Behavioral economics arises as a corrective, not by rejecting the idea of structure, but by redefining it to include the biases and limitations inherent in cognition. It does not replace rationality but situates it within a broader framework where decisions are shaped by perception, context, and constraint. Within this framework, the actions that contributed to the crisis become intelligible. Borrowers did not simply miscalculate; they navigated complex financial environments without the cognitive tools required to understand them, relying instead on signals provided by institutions that themselves operated under distorted incentives. The amount one could borrow became a substitute for the amount one should borrow, transforming external permission into internal justification. Financial instruments designed to expand access to credit simultaneously expanded vulnerability, as the perception of affordability replaced the reality of long-term obligation. Institutions, for their part, were not immune to these distortions. Incentive structures encouraged short-term gains while obscuring long-term risks, allowing participants to construct narratives that justified their actions. Conflicts of interest did not merely corrupt decision-making; they reshaped perception, aligning belief with benefit in ways that made self-deception both possible and profitable.

Complexity further amplified this effect, as the opacity of financial products created a space in which risk could be ignored or misunderstood without immediate consequence. The crisis thus reveals not a failure of individuals alone but a convergence of cognitive biases operating across levels of the system. Among these biases, the tendency to underestimate uncertainty plays a central role. The planning fallacy, typically associated with individual projects, scales upward into institutional behavior, where risks are systematically downplayed and contingencies neglected. This underestimation is not accidental but rooted in a cognitive preference for coherence, where optimistic projections are favored because they align with desired outcomes. When reality diverges from expectation, the result is not gradual adjustment but abrupt collapse. Trust, which underpins all economic exchange, becomes a casualty of this process. Once broken, it cannot be easily restored, as the perception of betrayal triggers responses that extend beyond rational recalculation. The erosion of trust transforms economic relationships into adversarial ones, where cooperation is replaced by suspicion and the desire for retribution. The psychological impact extends further,

producing a sense of helplessness in the face of unpredictable systems. When outcomes appear disconnected from actions, individuals lose the capacity to orient themselves within the economic environment, leading to withdrawal and disengagement. This condition mirrors experimental observations in which repeated exposure to uncontrollable outcomes produces passivity, suggesting that large-scale economic instability can reshape not only markets but also the cognitive and emotional states of those within them. The global dimension of the crisis intensifies these dynamics. Interconnected markets, while increasing efficiency, reduce diversity and amplify the spread of error. Homogeneity in strategies and instruments creates conditions in which failure is no longer localized but systemic, as the same assumptions propagate across institutions and borders. What appears as integration becomes vulnerability, as the lack of independent variation eliminates buffers against collapse.

At the level of leadership, the crisis raises questions about the relationship between incentive and performance. Excessive rewards, rather than enhancing decision-making, can distort it, shifting attention from long-term stability to immediate gain. The alignment between individual benefit and collective well-being breaks down, revealing that motivation is not simply a matter of magnitude but of structure. To respond to these challenges requires more than technical adjustment; it demands a transformation in how systems are designed. Policies must account for the realities of human cognition, incorporating safeguards against predictable errors rather than assuming their absence. Experimental approaches, applied at smaller scales, offer a means of testing interventions before they are implemented broadly, allowing for the observation of unintended consequences. This empirical orientation does not guarantee perfection but introduces a feedback mechanism that traditional models lack. The broader implication is that rationality, as traditionally conceived, cannot serve as the sole foundation for economic systems.

Human behavior is neither perfectly logical nor entirely chaotic; it follows patterns that must be understood on their own terms. Recognizing these patterns does not diminish the possibility of effective decision-making but enhances it, providing a more accurate basis for action. The path forward lies not in abandoning economic theory but in integrating it with a deeper understanding of the cognitive forces that shape behavior. In doing so, the failures of the past become not merely warnings but sources of insight, guiding the construction of systems that are better aligned with the realities of human thought.

*Ariely, D. (2008) Predictably Irrational: The Hidden Forces That Shape Our Decisions. New York: HarperCollins.*

### ***The Mind in the Body: Rebuilding Reason from Its Hidden Foundations***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, the traditional edifice of philosophy is confronted with a radical inversion, where the certainty of abstract reason gives way to the contingent structures of the human body and its cognitive limitations. The central claim unfolds with decisive clarity: the mind is not an autonomous, disembodied entity but a process inseparable from the physical organism that sustains it; thought does not primarily reside in conscious deliberation but emerges from vast unconscious operations; and abstraction itself is not pure but constructed through metaphor, grounded in sensory and motor experience. These insights do not merely adjust philosophical assumptions—they render them insufficient, demanding a reconstruction of inquiry from its very foundations. Reason, long treated as the defining feature of human identity, is revealed as a derivative phenomenon, shaped by evolutionary history and

constrained by biological architecture. It is not a transcendent faculty that elevates humanity above nature but an extension of perceptual and motor systems shared with other forms of life.

The capacity for abstraction does not originate in detachment from the body but in its repeated engagement with the world, where patterns of experience become the scaffolding for conceptual thought. In this sense, cognition is not a mirror of reality but an interpretive system, structured by the conditions under which it operates. The implications for the concept of universality are profound. If reason is embodied, then it cannot be entirely uniform or detached from variation. While shared biological structures produce commonalities in human understanding, differences in culture, language, and experience generate divergences that challenge the notion of a single, objective rationality. What appears as universal truth may instead be the product of shared constraints, a convergence of similar bodies navigating similar environments. This does not abolish objectivity but redefines it as relational rather than absolute, grounded in the intersection of embodied perspectives. Equally transformative is the recognition that most thought occurs outside conscious awareness. The image of the self as a transparent, self-knowing agent dissolves, replaced by a more complex structure in which conscious reasoning occupies only a narrow surface above a vast cognitive substratum. Introspection, once considered the primary tool of philosophical inquiry, proves insufficient for accessing the mechanisms that generate thought. The mind becomes partially opaque to itself, requiring empirical investigation to reveal its operations. This shift undermines the authority of purely reflective methods and situates philosophy within a broader interdisciplinary framework. The role of metaphor in structuring abstract thought further destabilizes classical conceptions of reason. Concepts such as time, causation, morality, and identity are not apprehended directly but through mappings derived from bodily experience. Spatial orientation, movement, balance, and containment become the templates through which abstract domains are understood.

Far from being ornamental, metaphor constitutes the very possibility of abstraction, embedding imagination at the core of rationality. Thought is thus not purely logical but inherently creative, shaped by analogies that both enable understanding and constrain it. Emotion, often excluded from rational accounts, emerges as an integral component of cognition. Decision-making is not the product of detached calculation but of an interplay between affect and inference, where feelings guide attention, valuation, and judgment. The separation between reason and emotion collapses, revealing them as interdependent processes within a unified cognitive system. To reason is not to eliminate emotion but to operate through it, integrating affective responses into the structure of thought. When these insights are applied to the major philosophical archetypes, their limitations become evident. The dualism that separates mind and body cannot account for the dependence of cognition on physical processes. The notion of an autonomous rational agent fails to recognize the constraints imposed by embodiment and unconscious processing. Models of utility and optimization overlook the influence of metaphor, bias, and emotional engagement. Even approaches that emphasize experience or cultural construction require revision, as they often neglect the biological grounding that shapes both. The result is not the rejection of these traditions but their transformation, as their insights are reinterpreted within a framework that acknowledges the full complexity of human cognition. Philosophical inquiry itself must therefore be reconfigured. No longer can it rely solely on abstract reasoning detached from empirical evidence. Instead, it must engage with the findings of cognitive science, linguistics, and related disciplines, integrating them into its methods and questions. Concepts that have long been treated as foundational must be reexamined, not as given truths but as constructs emerging from embodied experience. The history of philosophy, in turn, can be understood as a series of attempts to articulate these constructs, shaped by the cognitive conditions of those who produced them.

This perspective does not diminish philosophical thought but situates it within the broader context of human cognition, revealing its continuity with other forms of knowledge. The movement toward a philosophy grounded in the realities of the mind marks a decisive shift from speculation to investigation. It introduces a form of humility, acknowledging that understanding is limited by the very structures that make it possible. At the same time, it opens new possibilities, as the recognition of these limits enables more precise and effective forms of inquiry. By aligning philosophical reflection with the conditions of human cognition, this approach seeks not to abandon the pursuit of truth but to redefine it, grounding it in the lived realities of thought. In doing so, it offers a vision of philosophy that is both more constrained and more expansive, rooted in the body yet capable of reaching beyond it through the very mechanisms it seeks to understand.

*Lakoff, G. and Johnson, M. (1999) Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought. New York: Basic Books.*

### ***The Hidden Engine of Thought: How the Unconscious Constructs Reality***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, the apparent transparency of human thought dissolves into a layered architecture in which consciousness is only the visible surface of a far deeper and largely inaccessible system. What appears as deliberate reasoning is in fact supported by an extensive network of unconscious operations that not only enable thought but structure its very possibility. Human life, when examined closely, reveals itself as implicitly philosophical, not because individuals consciously engage in abstract reflection, but because every act of understanding presupposes a framework of assumptions about reality, knowledge, and the self. These assumptions do not originate in explicit reasoning; they arise from conceptual systems embedded within the cognitive unconscious, silently guiding interpretation and judgment. The traditional domains of philosophy—questions of existence, knowledge, mind, and morality—are therefore not external to everyday life but constitutive of it, operating continuously beneath awareness. The discovery of the cognitive unconscious reconfigures the status of these philosophical domains by revealing that their foundations are not consciously constructed but pre-structured by mechanisms that cannot be directly accessed through introspection. Even the simplest act of communication illustrates this dependence.

The ability to recognize sounds as language, to assign them grammatical roles, to extract meaning from context, and to anticipate responses unfolds automatically, without conscious intervention. These processes are not merely hidden; they are structurally inaccessible, forming a background condition that cannot be fully brought into awareness. Conscious thought, far from being primary, emerges as a limited interface through which the results of these operations become available. Without this underlying system, the coherence of experience itself would collapse, as there would be no mechanism to organize perception into meaningful patterns. The concept of the cognitive unconscious thus expands the notion of mind beyond the boundaries of awareness, incorporating not only latent processes but the entire infrastructure of cognition. It encompasses perception, memory, language, and reasoning, uniting them within a single framework that operates continuously and autonomously. This framework functions as a hidden regulator, shaping not only what is thought but how it is thought. It determines the structure of concepts, the form of inferences, and the range of possible interpretations, effectively delimiting the space within which conscious reasoning can occur. In this sense, the unconscious is not a repository of suppressed content but the generative system that produces intelligibility itself. Its influence extends into the domain of self-understanding, where even the notion of identity is revealed to be constructed through metaphorical patterns embedded within cognition. The idea of a divided self, composed

of competing forces of reason and desire, reflects not an objective structure but a conceptual mapping derived from bodily and social experience. Similarly, the search for a stable, authentic self presupposes a spatial metaphor in which identity is treated as an object to be located or uncovered. These metaphors are not superficial; they organize the way individuals interpret their own behavior and experience. They provide coherence to introspection while simultaneously constraining it, as they define the terms in which self-understanding is possible. Philosophical systems, far from escaping these constraints, are deeply shaped by them.

Theories of causation, essence, and morality often rely on conceptual metaphors that originate in embodied experience, granting them intuitive plausibility while masking their constructed nature. The apparent universality of such concepts may thus reflect shared cognitive structures rather than independent truths about reality. This realization does not render philosophical inquiry obsolete but transforms its task. Instead of seeking purely abstract foundations, philosophy must investigate the cognitive mechanisms that give rise to its own concepts, examining how they are formed, how they function, and how they limit understanding. This shift requires a methodological transformation, moving beyond reliance on introspection and a priori reasoning toward an engagement with empirical research. The study of the mind becomes indispensable for the study of philosophy, as it provides access to the processes that underlie conceptual formation. An empirically grounded philosophy does not merely supplement traditional approaches but reorients them, recognizing that conscious reflection alone cannot reveal the full structure of thought. The integration of cognitive science introduces a new form of responsibility, in which philosophical claims must be consistent with what is known about the mind's operation. This does not eliminate the normative dimension of philosophy but situates it within a realistic account of human cognition, acknowledging both its capacities and its constraints. The emergence of this perspective marks a turning point in philosophical inquiry.

By recognizing the central role of the cognitive unconscious, philosophy is compelled to reconsider its most basic assumptions, from the nature of the self to the possibility of objective knowledge. The task is no longer to construct systems that transcend human limitations but to understand those limitations as constitutive of thought itself. In doing so, philosophy becomes more closely aligned with the conditions of human existence, grounded not in abstraction alone but in the embodied and unconscious processes that make abstraction possible. The result is a redefined discipline, one that seeks to illuminate not only the world but the structures through which the world is understood, revealing that the deepest forces shaping reason are those that remain unseen.

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### ***The Body That Thinks: How Perception Becomes Reason***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, the notion of reason as an autonomous, abstract faculty collapses under the weight of empirical insight, revealing a far more intricate structure in which cognition emerges directly from the body's engagement with the world. To say that concepts and reasoning are embodied is not to offer a metaphor but to describe a condition: the very mechanisms that allow organisms to perceive, move, and survive also generate the structures through which they think. What philosophy once separated—reason, perception, and action—cognitive science reunites within a single neural continuum. The consequence is decisive: thought is no longer an elevated domain detached from biology, but an extension of it, shaped by

evolutionary pressures and constrained by the architecture of the organism. Human reasoning, in this light, becomes a specialized form of animal cognition, continuous with the capacities found across living systems. The distinction between human and nonhuman intelligence is thus not absolute but scalar, rooted in differences of complexity rather than essence. This continuity reframes the origin of what is often called everyday metaphysics. The sense of what exists, what causes what, and what counts as a stable entity does not arise from detached contemplation but from repeated bodily interactions with the environment.

These interactions sediment into patterns, and these patterns become the categories through which reality is apprehended. Categorization, therefore, is not a philosophical luxury but a biological necessity. Any organism capable of survival must distinguish between what sustains it and what threatens it, between what can be approached and what must be avoided. In human beings, this process is amplified by the immense complexity of the brain, where vast streams of sensory input are continuously reduced, organized, and stabilized into manageable forms. The act of categorizing is largely automatic, occurring beneath awareness as neural systems compress and structure incoming data. The limitations of this system are as important as its capacities. Because categorization depends on specific sensory and neural configurations, it cannot be entirely reshaped at will. Conscious effort can refine categories, but it cannot fully override the underlying biological constraints that give them form. Concepts emerge from this process as structured patterns that allow reasoning to operate. They are not abstract entities floating above experience but neural configurations grounded in bodily interaction. Many concepts are organized around prototypes, idealized representations that anchor understanding while allowing for variation. Others possess fluid boundaries, resisting rigid definition even as they are treated as discrete units in language. The widespread tendency to imagine categories as containers with clear edges reflects a deeper cognitive strategy: the imposition of spatial structure onto abstract domains. This strategy simplifies reasoning but also distorts it, as it imposes clarity where none may exist. The embodied nature of concepts becomes particularly evident in the way reasoning draws upon sensorimotor experience. Spatial relations, forces, and movements provide the templates for understanding causation, time, and agency. To think abstractly is thus to repurpose patterns derived from bodily action, transforming them into conceptual tools.

The implications for the nature of reality are profound. If perception and categorization are shaped by the body, then what is taken to be real is inseparable from the structures through which it is apprehended. Objects such as trees, rocks, and persons are not encountered as raw data but as already organized categories, stabilized by cognitive processes that operate prior to reflection. The traditional philosophical claim that reality is divided into objective categories independent of human perception becomes untenable, as does the belief that reason can access such categories directly. Instead, reality appears as a product of interaction, where external conditions and internal structures converge. The example of color illustrates this convergence with particular clarity. Color is not an intrinsic property of objects but the result of an interaction between physical stimuli, environmental conditions, sensory apparatus, and neural processing. The experience of blueness, for instance, does not reside in the sky but emerges from the way light is scattered and interpreted by the visual system. This phenomenon resists both naive realism, which treats color as an objective feature of the world, and pure subjectivism, which locates it entirely within the observer. What remains is a relational account in which perception arises from the interplay between organism and environment. Such an account challenges the correspondence theory of truth, which assumes a direct alignment between statements and an independent reality. If the properties we describe are themselves products of embodied interaction, then truth cannot be reduced to simple correspondence. Statements about the world are not mirrors of an external order but expressions

of a system that organizes experience according to its own constraints. This does not render truth arbitrary, but it situates it within a framework of interaction rather than representation. From this perspective emerges the notion of embodied realism, a position that acknowledges both the existence of an external world and the role of the body in shaping how that world is understood. It rejects the idea of a disembodied reason capable of accessing reality in its pure form, while also resisting the conclusion that all knowledge is merely subjective. Instead, it locates understanding within the dynamic relation between organism and environment, where cognition both reveals and constructs the world it engages.

The transformation implied by this view extends beyond specific philosophical debates. It calls for a redefinition of reason itself, no longer as a detached faculty but as a process grounded in the conditions of life. To think is to inhabit a body, to perceive through its limits, and to reason through structures that arise from its capacities. In recognizing this, philosophy is compelled to abandon the illusion of transcendence and to confront the material basis of thought. What emerges is not a diminished account of human cognition but a more precise one, in which the richness of reasoning is understood as inseparable from the very flesh that makes it possible.

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### ***The End of Pure Thought: How Embodiment Overthrows A Priori Reason***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, the long-standing ambition of philosophy to ground itself in pure, a priori reasoning encounters a decisive challenge from the empirical discoveries of cognitive science, revealing that what was once treated as self-evident truth is in fact shaped by hidden assumptions about the nature of mind and meaning. The confrontation is not merely between competing theories but between two fundamentally different orientations: one that begins with abstract principles and imposes them upon reality, and another that derives its claims from the observed workings of cognition itself. At stake is the very legitimacy of philosophy as a discipline capable of understanding human thought without first understanding the conditions under which thought occurs. The resistance to this shift arises from two directions. On one side stand those who remain committed to the tradition of disembodied reason, maintaining that concepts are literal, formal, and independent of the body. On the other side are critics who argue that any scientific account of the mind is itself embedded within cultural and philosophical frameworks, and therefore cannot claim objectivity. Both positions, though opposed, share a common assumption: that the relationship between philosophy and empirical inquiry is fundamentally problematic.

The response offered by second-generation cognitive science is to dissolve this opposition by demonstrating that empirical investigation does not eliminate philosophical reflection but transforms it, grounding it in the realities of cognition rather than in unexamined presuppositions. This transformation becomes visible when contrasting two paradigms that have shaped the study of mind. The earlier paradigm, aligned with analytic philosophy, conceived of cognition as a form of computation, where the mind operates like a formal system manipulating abstract symbols according to predefined rules. In this view, meaning is either externally assigned or internally generated through syntactic relations, and the body plays no essential role in the process. Thought is treated as disembodied, universal, and independent of context, mirroring the structures of logic and mathematics. Such a framework provided clarity and precision, but at the cost of detaching cognition from the conditions that make it possible. The later paradigm emerges not as a theoretical



preference but as a response to empirical findings that contradict these assumptions. Evidence from multiple disciplines reveals that concepts are not abstract tokens but patterns grounded in sensorimotor experience, that meaning is intrinsic to these patterns rather than externally imposed, and that reasoning relies on metaphorical structures derived from bodily interaction. Categories, once assumed to be defined by strict boundaries, are shown to be organized around prototypes, exhibiting gradience and context sensitivity. These discoveries do not merely refine existing theories; they render the earlier framework inadequate, as it cannot account for the phenomena it seeks to explain. The methodological commitments of this newer approach mark a decisive break from a priori philosophy. Theories must correspond to observable cognitive processes, drawing support from converging lines of evidence and extending across diverse domains of experience.

This orientation ensures that concepts such as metaphor, prototype, and embodied schema are not speculative constructs but empirically grounded features of cognition. Their emergence was not predicted by prior philosophical models but discovered through systematic investigation, indicating that the structure of thought cannot be deduced in advance but must be uncovered through inquiry. The critique of earlier assumptions follows directly from this shift. The idea that the mind can be understood independently of the body collapses when confronted with evidence of neural and sensorimotor involvement in reasoning. The belief in purely literal meaning dissolves in the face of pervasive metaphorical structuring, where even the most abstract domains are understood through mappings from bodily experience. The notion of fixed, universal categories gives way to a more dynamic understanding in which concepts vary across contexts and cultures, reflecting the diversity of human embodiment. These revisions do not eliminate the possibility of systematic knowledge but redefine its basis, locating it within the interplay of biological, experiential, and cultural factors. The case of conceptual metaphor illustrates the depth of this transformation. When abstract domains such as love are structured through patterns derived from physical journeys, reasoning follows the logic of movement, direction, and obstacle. This is not a poetic embellishment but a cognitive mechanism that shapes inference, language, and understanding. The consistency of such patterns across expressions and contexts demonstrates that metaphor is not an optional feature of thought but a fundamental principle of its organization. Through it, the body becomes the source of abstraction, and imagination becomes the medium through which reasoning operates. The philosophical consequences of this perspective are far-reaching.

The idea of a universal, disembodied reason must be abandoned in favor of a model that recognizes the dependence of thought on specific forms of embodiment. Meaning can no longer be treated as a fixed correspondence between symbols and an external reality but must be understood as emerging from interaction. Categories are no longer static containers but fluid structures shaped by experience and context. Philosophy, in turn, must relinquish its reliance on purely a priori methods and engage with the empirical study of cognition, integrating its findings into its conceptual framework. What emerges is a new form of realism, one that acknowledges the existence of an external world while recognizing that access to it is mediated by the structures of the mind. This embodied realism does not deny truth but situates it within the conditions of human cognition, where understanding is both constrained and enabled by the body. It replaces the illusion of pure thought with a more grounded account in which reason is inseparable from the processes that generate it. In this transformation, philosophy does not lose its significance but gains a new foundation, one that aligns its inquiries with the realities of the beings who undertake them.

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### ***The Fabric of Meaning: How Metaphor Constructs Truth***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, metaphor ceases to be a decorative feature of language and emerges instead as the central mechanism through which human beings construct meaning, reason about abstraction, and engage with what they call truth. What initially appears as a technical dispute about language reveals itself as a profound reorientation of philosophy itself, for if metaphor operates at the level of thought rather than expression, then the entire edifice of rationality must be reconsidered. The traditional view, which confines metaphor to the margins of poetic or rhetorical deviation, rests on a deeper conviction: that reality is composed of fixed entities with inherent properties, and that language, when used literally, mirrors this structure with precision. Within such a framework, metaphor is treated as an exception, a momentary departure from clarity into figurative approximation.

Yet this assumption collapses once the empirical evidence is taken seriously, for it becomes clear that metaphor is not an anomaly within thought but its condition of possibility. The classical account of metaphor rests on several interlocking claims: that metaphor belongs to words rather than concepts, that it is rare and nonconventional, that it represents a misuse of literal language, that conventional metaphors are no longer active, and that metaphor merely reflects preexisting similarities between domains. Each of these claims appears plausible only so long as thought itself is assumed to be literal. Once cognition is examined more closely, however, the inadequacy of this framework becomes evident. Everyday reasoning is saturated with metaphorical structures that operate automatically and unconsciously, shaping how abstract domains are understood. Expressions concerning time, knowledge, emotion, and social relations consistently draw upon patterns derived from bodily experience, indicating that metaphor is not an optional overlay but an organizing principle. The shift from a linguistic to a conceptual understanding of metaphor transforms its status entirely. When individuals speak of relationships reaching a dead end or standing at a crossroads, they are not merely employing colorful language but activating a structured mapping that allows one domain to be understood in terms of another. This mapping is systematic, generating inferences that guide reasoning and action. It is also conventional, embedded in everyday language to such an extent that it often goes unnoticed. The supposed boundary between literal and metaphorical dissolves, revealing that much of what is taken to be literal is in fact stabilized metaphor. Far from being deviant, metaphor is normal; far from being dead, it remains generative, continuously producing new expressions and shaping new understandings. The most decisive challenge to the traditional theory lies in the recognition that metaphor does not simply reveal similarity but creates it. Domains that share no inherent resemblance can be brought into relation through conceptual mapping, allowing structures from one to organize the other. In this process, metaphor becomes a source of knowledge, not merely a reflection of it. It enables the extension of reasoning into areas that would otherwise remain inaccessible, providing the scaffolding for abstraction.

Without such mappings, concepts such as time, causation, or identity would lack the richness required for practical or theoretical engagement. The implications for reason are immediate and far-reaching. If abstract thought depends on metaphor, then reason cannot be understood as a purely formal or disembodied process. It is instead grounded in bodily experience, drawing upon patterns of perception and action to structure inference. Metaphors such as knowing as seeing or understanding as grasping illustrate how sensory and motor experiences are projected onto domains that cannot be directly perceived. In this way, reason becomes both embodied and imaginative, operating through transformations that link the concrete and the abstract. Truth,

within this framework, can no longer be conceived as a simple correspondence between language and an independent reality. The traditional model presupposes that concepts directly map onto the world, but if those concepts are themselves shaped by metaphorical structures, then such direct mapping is impossible. Truth becomes relative to the conceptual systems through which understanding is achieved, systems that are grounded in embodiment and therefore variable across contexts. This does not imply that truth is arbitrary, but that it is mediated by the conditions of cognition. Statements are evaluated not against an inaccessible reality in itself but within frameworks that make that reality intelligible. The role of metaphor extends even further, shaping the fundamental categories through which philosophy operates. Concepts such as freedom, justice, and morality are not given in their abstract form but constructed through networks of metaphorical relations. To remove these structures would be to strip philosophy of its capacity to articulate meaning, leaving only empty formalism. Rather than undermining philosophical inquiry, the recognition of metaphor as foundational reveals the mechanisms through which philosophy achieves its insights. It shows that abstraction is not the elimination of experience but its transformation, carried out through systematic mappings that preserve structure while extending scope. Formal logic, while powerful within its domain, proves insufficient to capture this richness. Its reliance on literal representation and fixed categories cannot account for the fluidity and creativity of metaphorical reasoning. Human thought exceeds the bounds of formal systems precisely because it is not confined to them, operating instead through a dynamic interplay of embodiment and imagination. The challenge is not to replace logic but to situate it within a broader account of cognition, one that acknowledges the role of metaphor in shaping even the most rigorous forms of reasoning.

The emergence of an embodied understanding of metaphor thus marks a turning point in the philosophy of truth. It replaces the image of knowledge as a mirror with that of a construction, not in the sense of arbitrary invention but as the result of structured interaction between organism and environment. Metaphor becomes the bridge through which this interaction is articulated, connecting the immediacy of bodily experience with the abstraction of conceptual thought. In recognizing this, philosophy gains a new orientation, one that does not seek to eliminate metaphor in the pursuit of purity but embraces it as the very means through which understanding becomes possible.

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### ***The Divided Within: How Metaphor Fractures and Organizes the Self***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, the self emerges not as a unified, transparent entity but as a structured multiplicity, formed through layers of metaphor that both organize and destabilize our inner life. What appears as a coherent identity dissolves upon closer inspection into a system of experiential tensions: the struggle to command the body, the dissonance between intention and action, the gap between self-perception and external judgment, the capacity to inhabit another's perspective, and the continuous inner dialogue that monitors and evaluates experience. These are not incidental features of human existence but fundamental conditions that demand interpretation. The interpretation, however, does not arise from direct access to an objective self but from metaphorical structures grounded in bodily and social experience. The result is a conception of the self that is at once indispensable and internally inconsistent, a necessary fiction through which coherence is maintained. At the core of this system lies a fundamental division between what can be described as the Subject and the Selves. The Subject

functions as the perceived center of consciousness, will, and identity, while the Selves encompass the various aspects that appear external to this center: the body, habits, roles, histories, and conflicting tendencies.

This division is not discovered but constructed, arising from the need to make sense of experiences in which control is partial, inconsistent, or contested. The Subject is imagined as an agent capable of command, while the Selves become the domain over which this command is exercised or resisted. Yet this arrangement is inherently unstable, as the boundaries between controller and controlled shift continuously, producing the very conflicts the model seeks to explain. The metaphors that elaborate this division draw directly from embodied interaction. One of the most pervasive is the physical-object metaphor, in which self-control is understood as the manipulation of an object. To act is to move oneself as one would move a thing; to fail is to lose grip or possession. In this framework, the self can be lifted, dragged, or lost, treated as something both identical with and separate from the agent. This duality reflects the experience of effort, where the body does not always align with intention, requiring force to be exerted upon oneself as if upon another. A related structure is the locational metaphor, where identity is conceived spatially. To be in control is to remain within a defined boundary, while loss of control is imagined as displacement—being outside oneself, beside oneself, or removed from a stable center. Groundedness becomes synonymous with stability, while elevation or dispersion signifies disorientation. These spatial schemas transform abstract states into navigable terrains, allowing individuals to orient themselves within their own experience. Attention and coherence introduce another variation, where the self is treated as something that can be gathered or scattered. Focus becomes the act of bringing oneself together, while distraction disperses identity across multiple directions. This metaphor captures the fragility of attention, where the unity of the self depends on the capacity to maintain coherence across competing demands. The failure to do so is experienced not merely as distraction but as a loss of self-possession. Social relations provide yet another domain from which metaphors are drawn, mapping interpersonal dynamics onto internal life. The Subject may confront the Self as an adversary, framing inner conflict as a struggle between opposing forces.

Alternatively, it may assume the role of a parent, guiding, disciplining, or nurturing the Self as if it were a child. In other configurations, the relationship becomes one of friendship, care, or command, with the Subject acting as master and the Self as servant. Each of these models offers a way of interpreting internal experience, yet none provides a complete account. They coexist, overlap, and sometimes contradict one another, reflecting the complexity of the phenomena they attempt to organize. The multiplicity of roles within a single individual gives rise to the notion of multiple Selves, where different values, identities, or commitments are treated as distinct entities. The tension between them is not resolved but managed through metaphorical negotiation, as individuals shift between perspectives that cannot be fully reconciled. This multiplicity is not an anomaly but a structural feature of cognition, arising from the diverse contexts in which the self is engaged. The capacity to project oneself into another's position further complicates this structure. In acts of empathy or advice, the Subject extends beyond its own boundaries, temporarily inhabiting another perspective. This projection blurs the distinction between self and other, revealing that identity is not fixed but dynamically constructed through interaction. It also demonstrates that the same mechanisms used to understand oneself are employed to understand others, reinforcing the continuity between internal and external cognition. The search for an essential self introduces yet another layer, where identity is conceived as something hidden, awaiting discovery, or alternatively as something already manifest but obscured by circumstance. This metaphor reflects the desire for coherence and authenticity, yet it remains paradoxical, as the

very notion of a stable essence conflicts with the multiplicity revealed by other metaphors. The essential self becomes both a guiding ideal and an unattainable abstraction, a point of reference that organizes experience without ever being fully realized. The philosophical implications of this system are profound. The self, as commonly understood, is not a literal entity but a conceptual construct shaped by metaphor. Its apparent unity is the result of overlapping models that provide partial coherence while masking their own inconsistencies. These models are not arbitrary; they arise from universal aspects of embodied experience, which explains their recurrence across cultures. At the same time, they do not align with scientific accounts of the mind, which emphasize integration rather than division.

The persistence of these metaphors, despite their inconsistencies, indicates that they fulfill a cognitive function that cannot be easily replaced. They provide a framework for navigating inner life, enabling individuals to interpret conflict, responsibility, and identity in terms that are both accessible and actionable. To recognize the metaphorical nature of the self is not to dissolve it into illusion but to understand the conditions under which it appears coherent. The self is neither a fixed substance nor a mere fiction but a dynamic construction, continually shaped by the interaction between embodiment, experience, and conceptual structure. In this recognition, philosophy is invited to reconsider its most fundamental assumptions about identity, moving beyond the search for a unified essence toward an understanding of the self as a process, structured by the very metaphors that both reveal and obscure it.

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### ***The Economy of Good and Evil: How Metaphor Governs Moral Reason***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, morality is revealed not as a system derived from pure reason or transcendent principles, but as a structured network of metaphors grounded in the lived realities of human bodies and social existence. What appears as ethical clarity—justice, fairness, virtue, obligation—emerges from patterns of experience that precede abstraction, rooted in the fundamental conditions of well-being. Human beings do not first discover morality and then express it metaphorically; rather, they construct morality through metaphor, drawing on bodily and social interactions to give shape to otherwise intangible concepts. At the foundation of this construction lies a shared experiential structure. Across cultures, certain conditions are consistently associated with flourishing: health rather than illness, strength rather than weakness, freedom rather than constraint, connection rather than isolation, balance rather than instability, light rather than darkness. These are not arbitrary preferences but recurring features of embodied life, forming a tacit understanding of what it means to thrive. From this implicit framework arises a system of moral reasoning, where actions are evaluated according to how they promote or hinder these conditions.

The universality of such experiences gives moral thought a common grounding, even as its expressions vary across cultural contexts. The transformation from experience to morality occurs through metaphorical projection. One of the most pervasive mappings conceptualizes well-being as wealth, converting states of flourishing into the language of gain and loss. In this framework, to benefit another is to give something of value, while to harm is to take something away. Moral interaction becomes a form of accounting, where actions are measured, balanced, and evaluated according to their effects on the moral ledger. Justice, within this system, is the restoration of equilibrium, ensuring that losses are compensated and gains are appropriately distributed. This

metaphor extends into a complex structure of moral accounting, where reciprocity, restitution, and even revenge are understood as mechanisms for balancing the books. Acts of generosity accumulate moral credit, while wrongdoing incurs debt, creating a system in which ethical life resembles an economy of exchange. The notion of karma amplifies this structure by extending it beyond individual interactions to the scale of the universe itself. Here, the balancing of moral accounts is no longer a human responsibility alone but a cosmic process, where actions inevitably return to their origin. This belief reflects a deep desire for order, projecting the logic of exchange onto the fabric of reality. Whether interpreted religiously or secularly, it reinforces the idea that morality operates within a system of consequences, even when those consequences are not immediately visible. Another central metaphor organizes morality around the concept of strength. To act ethically is to resist forces that would lead to harm, whether these forces arise from external pressures or internal desires. Uprightness becomes a sign of virtue, while deviation downward signifies moral failure. This spatial orientation, derived from bodily experience, transforms ethical life into a struggle for stability, where discipline and restraint are forms of strength. Weakness, in this context, is not merely a lack of capacity but a susceptibility to wrongdoing, linking physical and moral vulnerability within a single conceptual frame. Fairness introduces yet another dimension, conceptualized as balance. The distribution of resources, opportunities, and responsibilities is evaluated according to principles that aim to maintain equilibrium, though these principles themselves vary.

Equality demands uniform distribution, need prioritizes those who lack, and effort rewards contribution. These models coexist, often in tension, revealing that fairness is not a single standard but a family of related metaphors. Conflicts arise not from the absence of morality but from the application of different frameworks to the same situation, each grounded in distinct aspects of embodied experience. The language of rights and duties further elaborates the moral system through the metaphor of obligation as debt. Rights become claims to well-being, while duties are the responsibilities incurred in maintaining social balance. This structure reinforces the relational nature of morality, where individuals are bound together through networks of expectation and accountability. Authority, too, is understood through metaphor, often modeled on the relationship between parent and child. Legitimate authority emerges from care, protection, and guidance, while its abuse reflects a breakdown of these foundational relations. The philosophical implications of this system are profound. If moral reasoning is grounded in metaphor, then it cannot be reduced to purely logical or universal principles detached from experience. It is inherently embodied, shaped by the conditions of human life and the structures of cognition that interpret them. At the same time, the recurrence of similar metaphors across cultures suggests a form of constrained universality, where shared experiences give rise to comparable moral frameworks. This universality, however, is not absolute, as different metaphors can lead to conflicting evaluations of the same action.

The coexistence of these frameworks explains the persistent ambiguity of moral judgment, where no single perspective can fully capture the complexity of ethical life. To understand morality in this way is not to diminish it but to reveal its depth. Ethical systems are not arbitrary constructs but reflections of how human beings navigate the conditions of existence, translating the demands of survival and flourishing into conceptual structures that guide action. Metaphor becomes the medium through which this translation occurs, bridging the gap between concrete experience and abstract principle. In recognizing this, morality appears not as a fixed code imposed from above but as a dynamic system emerging from the interplay of body, mind, and world. It is through this system that human beings make sense of their obligations to one another, continually negotiating the balance between self and other, freedom and constraint, gain and loss.

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### ***Philosophy as Cognition: How Thought Thinks Itself***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, philosophy is no longer positioned as an external observer of human experience but is revealed as one of its most intricate products, a form of cognition reflecting upon its own structures. Philosophical theories, which aspire to coherence, universality, and rational completeness, are shown to arise from the same conceptual resources that govern everyday understanding. They are not constructed from pure reason detached from human conditions, but from embodied patterns, cultural inheritances, and metaphorical frameworks that shape what can be thought and how it can be expressed. The ambition of philosophy—to explain existence, knowledge, identity, and morality—thus becomes inseparable from the cognitive mechanisms that make such explanation possible. At the foundation of this insight lies the recognition that philosophical systems are extensions of what might be called folk theories, the implicit models through which individuals interpret the world in ordinary life. These models are not naive errors to be discarded but the very material from which philosophical reflection is built. When a philosopher articulates a theory of mind, truth, or reality, they are refining and reorganizing conceptual structures already present within their cultural and experiential environment.

The apparent abstraction of philosophical discourse conceals its dependence on these underlying patterns, which provide both its vocabulary and its logic. The mind conceived as a container, knowledge as something received, or truth as correspondence are not neutral descriptions but metaphorical constructions that shape entire systems of thought. Cognitive science enters this domain not as a competing philosophy but as a discipline capable of revealing the mechanisms through which such constructions arise. Its first contribution is analytical: it uncovers the conceptual frameworks that philosophical theories presuppose, making explicit the metaphors and models that operate implicitly. Questions that appear universal—concerning truth, goodness, or reality—are shown to depend on specific ways of structuring experience, ways that are neither inevitable nor independent of human cognition. This revelation destabilizes the assumption that philosophy begins from a neutral standpoint, demonstrating instead that it is always situated within a network of embodied meanings. The second contribution is critical. By providing empirical evidence about how concepts and reasoning actually function, cognitive science exposes the limitations of philosophical models that conflict with these findings. Classical theories of categorization, for instance, rely on the idea of fixed boundaries and necessary conditions, yet empirical studies reveal that human categories are often organized around prototypes, exhibiting gradience and context sensitivity. Such discrepancies are not minor adjustments but fundamental challenges, indicating that certain philosophical assumptions cannot be sustained once cognition is properly understood. This critique extends to the methodologies of philosophy itself, questioning the sufficiency of introspection and a priori reasoning as tools for uncovering the structure of thought. The third contribution is constructive. By aligning philosophical inquiry with empirical knowledge, cognitive science opens the possibility of developing theories that are both conceptually coherent and cognitively realistic.

Philosophy informed by this approach does not abandon its traditional questions but reconfigures them, seeking answers that account for the embodied and metaphorical nature of reasoning. In doing so, it gains a practical dimension, offering insights into how beliefs are formed, how values are structured, and how social and political systems can be designed in accordance with human

cognitive capacities. This orientation transforms philosophy from a purely speculative endeavor into one that engages directly with the conditions of human life. The recognition that philosophical theories are embodied constructs further deepens this transformation. The metaphors that underlie them are not arbitrary inventions but arise from recurrent patterns of bodily interaction and cultural experience. Concepts of substance, motion, containment, and illumination, drawn from physical engagement with the world, become the building blocks of metaphysical and epistemological systems. Historical philosophies can thus be understood as elaborations of these basic schemas, shaped by the contexts in which they emerged. The continuity between everyday cognition and philosophical abstraction becomes visible, revealing that even the most sophisticated theories remain grounded in the structures of human experience. Case studies across philosophical domains illustrate the pervasiveness of this grounding. Metaphysical inquiries into being and essence rely on spatial and material metaphors that give form to otherwise indeterminate ideas. Theories of mind, particularly those developed during the Enlightenment, draw upon mechanical and container metaphors that reflect the technological and cultural environment of their time. Moral philosophies, often presented as products of pure reason, are structured by metaphors of hierarchy, purity, and obligation, linking ethical judgment to embodied and social patterns. These examples demonstrate that philosophy does not transcend metaphor but operates through it, using it as the medium for articulating abstract thought. The implications for contemporary philosophy are decisive. If metaphor is ineliminable, then the aspiration to construct a purely literal or disembodied account of reality must be abandoned. Instead, philosophical inquiry must acknowledge its dependence on the same cognitive resources that structure ordinary understanding.

This acknowledgment does not undermine philosophy but redefines its task, shifting the focus from the pursuit of absolute foundations to the exploration of the conditions under which meaning is produced. Embodied understanding becomes the basis for a new form of realism, one that recognizes both the existence of an external world and the role of human cognition in shaping how that world is known. In this perspective, philosophy becomes self-reflective in a new sense. It does not merely analyze concepts but investigates the processes that generate them, turning its attention inward to the cognitive structures that underlie its own activity. The study of philosophy thus converges with the study of mind, revealing that to understand philosophical thought is to understand the mechanisms of cognition itself. This convergence marks not the end of philosophy but its transformation, as it becomes a discipline grounded in the realities of human thought, capable of examining both the world and the ways in which that world is brought into intelligibility.

*Lakoff, G. and Johnson, M. (1999) Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought. New York: Basic Books.*

### ***The Machinery of Ideas: How Philosophy Constructs Its Own Foundations***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, philosophical systems are no longer treated as products of detached rational contemplation but as structured outcomes of embodied cognition, where thought builds itself from the very mechanisms it seeks to explain. Philosophy, traditionally understood as the pursuit of ultimate clarity regarding morality, knowledge, existence, and human nature, is revealed to operate not outside human experience but within it, transforming implicit cultural assumptions into explicit, organized frameworks. What appears as abstract reasoning is in fact a refinement of inherited conceptual patterns, drawn from shared metaphors, social practices, and embodied interactions. The philosopher does not create from nothing but



reorganizes what is already present, making visible the hidden architecture of belief. This recognition alters the status of philosophical reasoning itself. The ideal of a purely disembodied intellect, capable of examining its own operations without distortion, becomes untenable once cognition is understood as grounded in bodily and neural processes. Reason does not stand apart from experience; it emerges from it, shaped by the same unconscious systems that govern perception, movement, and social interaction.

Philosophy, therefore, cannot claim independence from the conditions of cognition. It becomes an activity of embodied reason, dependent on metaphorical structures that both enable and constrain its reach. At the core of philosophical construction lies the use of shared conceptual metaphors. These metaphors, often unnoticed, provide the coherence that allows philosophical systems to function. When the mind is conceived as a container, knowledge becomes something that can be acquired, stored, or lost; when morality is framed as autonomy, ethical life becomes a matter of self-governance and adherence to internal law. Such metaphors are not decorative but structural, determining what counts as a problem and what counts as a solution. The apparent intuitiveness of a philosophical theory often reflects its alignment with these underlying patterns, which resonate because they are already embedded within everyday cognition. Metaphysics, the domain most concerned with the nature of reality, reveals this dependence with particular clarity. Philosophers project structures from familiar domains onto more abstract ones, using metaphors derived from vision, mechanics, or mathematics to articulate their theories. The conception of understanding as seeing, for example, transforms knowledge into a process of illumination, requiring objects to be made visible within a mental space. Similarly, the idea that being can be understood as number reflects a projection from the domain of quantitative order onto the structure of existence itself. These mappings are not arbitrary choices but necessary operations, allowing thought to extend beyond immediate experience by reusing its own patterns. Philosophical innovation emerges from this process as a form of creative synthesis.

By combining and extending existing metaphors, philosophers generate new frameworks capable of addressing novel questions. The originality of a philosophical system lies not in its detachment from common cognition but in its ability to reorganize it in unexpected ways, revealing connections that were previously unnoticed. This creativity demonstrates that philosophy is not diminished by its reliance on metaphor; rather, it is defined by the imaginative capacity to transform familiar structures into new forms of understanding. Yet the same metaphors that enable philosophical thought also impose limits upon it. Each conceptual mapping highlights certain aspects of experience while obscuring others, shaping the direction of inquiry and restricting the range of possible conclusions. When categories are treated as containers, reasoning tends toward rigid boundaries and formal abstraction, neglecting the fluidity observed in actual cognition. When self-knowledge is conceived as reflection, the role of unconscious processes is overlooked, producing an incomplete account of the mind. These constraints are not external obstacles but internal features of the metaphors themselves, embedded within the very structure of philosophical reasoning. Cognitive science provides the means to uncover and evaluate these constraints. By examining how concepts and reasoning operate in practice, it reveals the assumptions that philosophical systems take for granted, exposing both their strengths and their limitations. Classical logic, for instance, can be reinterpreted not as an autonomous formal system but as grounded in embodied schemas, where patterns such as containment give rise to inferential structures. This perspective does not invalidate logic but situates it within a broader cognitive framework, where its principles are understood as emerging from human interaction with the world rather than existing independently of it. The critique extends to major philosophical traditions. The Aristotelian emphasis on fixed categories reflects a metaphorical structure that fails to capture the

variability of real-world classification. The Cartesian model of the mind as a transparent, self-reflective entity overlooks the depth of the cognitive unconscious, which shapes thought beyond awareness. The Kantian vision of morality as deriving solely from reason abstracts ethical life from the embodied and social contexts that give it meaning. In each case, the limitations of the theory can be traced to the metaphors that structure it, demonstrating that philosophical systems are both enabled and constrained by their conceptual foundations.

The transformation proposed by cognitive science is therefore not a rejection of philosophy but a reconfiguration of its method and scope. By revealing the metaphorical basis of philosophical thought, it allows for the identification of outdated models and the development of alternatives that align more closely with empirical understanding. Ethics can be reconsidered in light of how moral reasoning actually functions, incorporating insights from neuroscience and social cognition. Logic can be reimagined as a process grounded in embodied interaction rather than as a purely formal abstraction. In each case, the aim is not to abandon philosophical inquiry but to make it more responsive to the realities of human cognition. This reorientation leads to a new vision of philosophy, one that abandons the illusion of disembodied reason while preserving the discipline's critical and creative capacities. Philosophy becomes an exploration of the structures through which meaning is constructed, a reflection not only on the world but on the ways in which the world is made intelligible. In recognizing its own cognitive foundations, it gains a clearer understanding of its possibilities and its limits, transforming itself from a search for absolute certainty into an investigation of the conditions under which understanding itself arises.

*Lakoff, G. and Johnson, M. (1999) Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought. New York: Basic Books.*

### ***The Flesh That Thinks: Reclaiming Philosophy as an Embodied Practice***

In George Lakoff and Mark Johnson's *Philosophy in the Flesh*, philosophy is returned to its most fundamental origin—not as an abstract enterprise detached from life, but as a deeply human activity arising from the need to understand, orient, and transform existence. The capacity to ask why, to reflect on love, death, work, and meaning, does not emerge from a disembodied intellect but from a being situated in a body, embedded in a world, and shaped by experience. Philosophy matters precisely because it is inseparable from this condition: it is the attempt of embodied minds to make sense of their own limits and possibilities. At its center lies the question of self-knowledge, not as a purely introspective achievement but as an inquiry into the mechanisms that make thought itself possible. This inquiry, once confined to speculation, is transformed by the emergence of cognitive science, which reveals that concepts, reasoning, and emotion are not transparent operations but structured processes grounded in neural and bodily systems. The integration of these insights produces a new form of philosophy, one that no longer relies solely on a priori assumptions but seeks alignment with empirical understanding. The shift toward empirical responsibility marks a decisive reorientation.

Philosophy enters into dialogue with science, not as a subordinate discipline but as a partner that both draws from and critiques empirical findings. Cognitive science exposes the inadequacy of traditional assumptions, particularly the belief in disembodied reason, while philosophical reflection ensures that scientific practices remain aware of their conceptual foundations. This reciprocal relation transforms philosophy into an ongoing process of adjustment, where theories are continuously tested against what is known about human cognition. The result is a more grounded form of inquiry, capable of addressing the realities of thought rather than its idealized

abstractions. The implications of this shift become most evident in the redefinition of the human person. The classical image of the self as a rational, autonomous, and disembodied agent gives way to a more complex understanding. Reason is no longer universal and detached but emerges from the body, shaped by sensorimotor systems and constrained by neural architecture. Concepts are not literal representations of the world but metaphorical constructions that translate experience into thought. Freedom, once imagined as absolute, is revealed to be limited by unconscious processes and cultural frameworks that structure perception and action. Morality, traditionally grounded in universal principles, is reinterpreted as arising from embodied experiences of well-being, social interaction, and emotional engagement. Human nature itself ceases to be defined by fixed essences, appearing instead as a dynamic process characterized by variation, adaptation, and change. This transformation extends into the domain of evolution and ethics, where inherited metaphors reveal their influence. The widespread interpretation of evolution as a competitive struggle has shaped economic and political theories, reinforcing the idea of human beings as self-interested agents.

Yet this interpretation is neither empirically necessary nor conceptually neutral; it reflects a particular metaphorical framing that can be replaced by others emphasizing cooperation, nurturance, and interdependence. Similarly, the opposition between selfishness and altruism dissolves when examined through the lens of cognitive science, which shows that moral reasoning operates through multiple, often conflicting frameworks derived from familial and social experience. Ethical life becomes pluralistic, structured by competing models that cannot be reduced to a single principle. The reconfiguration of philosophy reaches even into the domain of spirituality, where the notion of a disembodied soul is revealed as a projection arising from the experience of self-division. The sense of a Subject separate from the body generates the illusion of an independent essence, yet this separation is itself a product of metaphorical cognition. An alternative understanding emerges in which spirituality is grounded in embodiment, expressed through the capacity for empathy, connection, and imaginative projection. Transcendence is no longer conceived as escape from the physical world but as a deeper engagement with it, an immanent relation that recognizes the interconnectedness of life. Metaphor plays a central role in this process, providing the means through which abstract spiritual ideas are made accessible and meaningful, linking the ineffable to the tangible.

The culmination of these insights is a redefinition of philosophy itself. No longer the pursuit of pure reason detached from experience, it becomes an exploration of the structures that make experience intelligible. Its task is not to transcend the conditions of human cognition but to understand them, to reveal how meaning arises from the interaction of body, mind, and world. This does not diminish philosophy's significance; it deepens it, grounding its inquiries in the realities of human existence. By embracing its embodied nature, philosophy gains a clearer vision of its purpose: to illuminate the processes through which we think, to expose the assumptions that guide us, and to offer ways of living that are responsive to the conditions of our being. In this sense, philosophy in the flesh is not a reduction but an expansion, a recognition that the richness of thought lies precisely in its rootedness in life, where abstraction and experience converge in the continuous effort to understand what it means to be human.

*Lakoff, G. and Johnson, M. (1999) Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought. New York: Basic Books.*

### ***The Past That Acts: Memory as a Machine for Future Thought***

In Pascal Boyer's *Memory in Mind and Culture*, the question of memory is shifted from storage to function, from what is retained to what is achieved through retention, revealing that memory is not designed to preserve the past but to construct the conditions for action in the present and anticipation of the future. The common intuition that memory serves as an archive collapses under evolutionary scrutiny, for the past as such has no causal power; only its consequences, as interpreted in the present, can influence behavior. Memory therefore emerges not as a passive record but as an adaptive system, organized around the demands of prediction, decision, and survival. Its role is to transform traces of prior experience into resources for navigating uncertainty, selecting actions, and evaluating outcomes. The biological logic of memory becomes clear when situated within environments where information is incomplete and direct perception insufficient. Organisms benefit from retaining patterns that recur, extracting regularities that can guide future behavior without the need for constant recalculation. Semantic memory stabilizes knowledge, providing a framework of expectations about the world, while procedural memory encodes skills that allow efficient interaction with recurring situations.

These systems reduce cognitive load, replacing deliberation with learned response, and thereby increase the organism's capacity to act effectively under constraint. Yet beyond these systems lies a more enigmatic capacity, one that cannot be reduced to generalization: the ability to recall specific events. Episodic memory introduces a different temporal structure, one in which the past is not merely abstracted into rules but re-presented as experience. This capacity allows the mind to revisit particular situations, reconstructing their perceptual and emotional dimensions, and to use these reconstructions as simulations of possible futures. Memory thus becomes a form of mental time travel, enabling the organism to project itself forward by reworking what has already occurred. The function is not accuracy but flexibility, as the recombination of past episodes provides a repertoire of scenarios through which potential actions can be evaluated. In this sense, memory operates as an imaginative system, generating possibilities rather than preserving certainties. The connection between episodic memory and the self reveals another dimension of its function. The integration of discrete experiences into a narrative produces the sense of a continuous identity, linking past, present, and anticipated future into a coherent structure. This narrative is not given but constructed, emerging gradually as cognitive capacities develop. The child's early memories lack the organization required for selfhood, only later becoming part of a system in which experiences are interpreted as belonging to a single agent. Memory, therefore, does not merely support identity; it constitutes it, providing the material through which the self is imagined and maintained. The self becomes a temporal construct, dependent on the selective reconstruction of past events and their alignment with present understanding. This process extends beyond the individual into the domain of collective life, where memory functions as a mechanism of social cohesion. Shared narratives create a sense of belonging, organizing groups around common histories that are continually reshaped to serve present purposes. Collective memory is not an objective account but a selective reconstruction, emphasizing certain events while neglecting others, aligning the past with the needs of the present. Through this process, memory becomes a tool of cultural continuity, transmitting values, norms, and identities across generations. At the same time, it introduces a dynamic tension, as individual recollections are influenced by collective frameworks, blurring the boundary between personal and social memory. The evolutionary significance of memory becomes most apparent in its role as a system for evaluating agents within a social environment.

The capacity to recall past interactions allows individuals to assess trust, detect patterns of behavior, and anticipate the actions of others. This function is crucial in contexts where

cooperation and deception coexist, requiring constant monitoring and reinterpretation of social information. Memory thus contributes to social vigilance, enabling the organism to navigate complex networks of relationships where the consequences of interaction extend beyond immediate perception. The integration of memory with emotion further enhances its adaptive function. Emotional intensity serves as a marker of significance, prioritizing certain experiences for retention and influencing future decisions. The affective dimension of memory does not simply accompany recall but shapes its structure, linking past outcomes with present motivations. Through this mechanism, memory constrains impulsive behavior, providing a record of consequences that informs choice. Actions are not evaluated solely in terms of immediate gain but in relation to accumulated experience, where emotional traces guide the assessment of risk and reward. This interplay between memory and emotion transforms recollection into a regulatory system, aligning behavior with long-term adaptation.

To understand memory, therefore, is to recognize its orientation toward the future. It is not a repository of what has been but a mechanism for what can be, organizing experience into patterns that enable prediction, simulation, and decision. Its apparent concern with the past is secondary to its primary function: the construction of possibilities. In this light, inaccuracies and distortions are not failures but features, reflecting the system's priority for flexibility over fidelity. Memory sacrifices precision in order to remain useful, reshaping the past to serve the needs of the present and the uncertainties of the future. The result is a cognitive system that does not preserve time but transforms it, converting what has occurred into a resource for what might occur. In doing so, memory becomes one of the central processes through which human beings engage with their environment, their societies, and themselves, continuously reworking experience into the fabric of action and meaning.

*Boyer, P. (2009) Memory in Mind and Culture. Cambridge: Cambridge University Press.*

### ***The Past Rewritten: Memory as the Architecture of Identity***

In Pascal Boyer's *Memory in Mind and Culture*, the past ceases to be a fixed domain preserved in the mind and instead appears as a continuously reconstructed landscape, shaped by interpretation, purpose, and structure. Memory is not a recording device but a generative system, one that transforms traces of experience into meaningful representations through the use of schemata—frameworks that organize perception and recall. What is remembered is never a simple imprint of what occurred, but the result of an active process that selects, arranges, and interprets fragments of experience in accordance with cognitive patterns. This constructive nature does not imply arbitrariness or falsehood; rather, it reveals that accuracy is not opposed to reconstruction. Memory can remain faithful to events while still elaborating them, as fidelity depends not on literal replication but on coherence within a structured system of meaning. The domain in which this process becomes most visible is autobiographical memory, where recollection is inseparable from the question of identity. Personal memories do not merely recount events; they situate the individual within a temporal narrative, linking past experiences to present understanding. Yet this domain resists straightforward analysis, as it combines the uniqueness of lived experience with the need for systematic study.

The challenge of capturing such memories within controlled conditions once limited their investigation, but methodological innovations have gradually revealed the mechanisms through which they are formed and retrieved. These mechanisms show that personal memory is neither purely subjective nor entirely determined by external reality, but emerges from the interaction

between experience and the structures that give it form. The relationship between memory and identity introduces a fundamental paradox. While it is often assumed that the self depends on the preservation of personal experiences, cases of memory loss demonstrate that identity can persist even when access to specific events is disrupted. Individuals may lose detailed recollections yet retain knowledge of their own traits, preferences, and roles. This suggests that memory operates on multiple levels, where the retention of general self-representations can be maintained independently of episodic detail. At the same time, the absence of experiential memory produces a sense of dislocation, as if the continuity of the self has been fractured. The self thus emerges as both dependent on and independent of memory, sustained by general structures while animated by specific experiences. This duality reflects a deeper principle governing memory: its orientation toward meaning rather than completeness. Memory does not aim to preserve every detail but to extract what is relevant for ongoing cognition and behavior. This orientation becomes evident in the role of the working self, a system of current goals that shapes what is remembered and how it is interpreted. Memories are not stored in isolation but integrated into networks aligned with these goals, allowing the past to be reorganized in light of present concerns. As goals change, so too does the structure of recall, producing a dynamic interplay in which memory and intention continually reshape one another.

The past is thus not static but reconfigured through the lens of the present, becoming a resource for action rather than a fixed record. The organization of autobiographical memory extends beyond individual cognition into the domain of culture, where personal narratives are aligned with shared scripts that define the expected course of a life. These scripts provide a framework within which individual experiences are situated, highlighting certain periods as particularly significant. The prominence of memories from early adulthood, often observed across individuals, reflects the convergence of personal development with cultural expectations regarding key life events. Memory, in this sense, becomes a point of intersection between the individual and the collective, where personal history is shaped by social patterns that guide interpretation and recall. The capacity for recollection is further enriched by the phenomenon of mental time travel, in which past events are not merely known but re-experienced. This re-experiencing involves the reconstruction of sensory and emotional elements, creating a sense of immediacy that reinforces the authenticity of memory. Yet this vividness does not guarantee accuracy; it reflects the integration of multiple processes that generate the experience of reliving. The mechanisms underlying this process include both explicit recall and implicit influences, such as priming, which shape responses without entering conscious awareness. Memory thus operates on multiple levels simultaneously, combining deliberate reconstruction with automatic activation.

To understand memory as a constructive process is to recognize its adaptive function. The integration of sensory, emotional, and conceptual elements into coherent narratives allows individuals to navigate both their past and their present, providing a framework for decision-making and self-understanding. The flexibility of this system, far from being a limitation, enables it to respond to changing conditions, reorganizing experience in ways that support ongoing goals. Memory does not simply preserve identity; it produces it, weaving together fragments of experience into a narrative that is continuously revised. In this ongoing reconstruction, the past becomes a function of the present, shaped by the needs, expectations, and structures that define the individual at any given moment. What emerges is not a stable archive but a living system, one in which recollection is inseparable from interpretation, and where the act of remembering is itself an act of creation.

*Boyer, P. (2009) Memory in Mind and Culture. Cambridge: Cambridge University Press.*

### ***The Scripted Self: How Culture Writes the Memory of a Life***

In Dorthe Berntsen and Annette Bohn's *Cultural Life Scripts and Individual Life Stories*, the personal narrative—often assumed to be the most intimate expression of individuality—emerges instead as a structured construction shaped by shared cultural expectations that determine not only what is remembered but what is considered worth remembering. When individuals recount their lives, they do not draw randomly from the totality of experience; they select events that align with a culturally sanctioned sequence of milestones. These selections reveal that memory is guided not simply by subjective importance but by frameworks that define significance in advance. What appears as a personal judgment of importance is, in large part, the internalization of collective norms that establish which events count as meaningful within a life. At the core of this process lies the concept of the life script, a culturally shared schema that outlines the expected order and timing of major life events. These scripts function as cognitive templates, organizing experience into a recognizable structure that renders individual lives intelligible both to oneself and to others. They provide a sense of temporal orientation, suggesting not only what events should occur but when they should occur, distinguishing between what is considered normative and what is perceived as deviation. Even within societies that emphasize personal autonomy, these scripts exert a powerful influence, shaping expectations and evaluations of life trajectories.

Events that align with the script are experienced as natural and coherent, while those that fall outside its sequence often acquire a sense of disruption or anomaly. Memory operates within this framework by privileging events that correspond to the script. When individuals are asked to recall significant moments, they tend to retrieve experiences that mark transitions or achievements recognized by their culture. These events are more readily accessible because they are embedded within a structured narrative that facilitates retrieval. The prominence of such memories is particularly evident in the phenomenon of the reminiscence bump, where individuals recall a disproportionate number of events from early adulthood. This concentration reflects the density of culturally significant milestones during this period, as individuals navigate transitions associated with independence, relationships, and long-term commitments. Memory, in this sense, does not simply reflect lived experience but amplifies those segments of life that align with shared expectations. The formation of life scripts is itself a developmental process, emerging gradually through socialization. Children initially construct narratives that include idiosyncratic or fantastical elements, reflecting their limited exposure to cultural norms. Over time, these narratives become increasingly aligned with socially shared patterns, as individuals internalize the sequences and values that define a typical life course. This internalization enhances the coherence of personal narratives, enabling individuals to organize their experiences into structured stories that conform to recognizable forms. The ability to produce such narratives is not merely a linguistic skill but a cognitive achievement, dependent on the integration of personal memory with cultural knowledge. Life scripts thus serve as both organizing principles and interpretive guides. They provide a framework through which past experiences are arranged into a sequence that appears meaningful and continuous, while also shaping expectations about the future. Individuals do not merely recall their lives through these scripts; they anticipate and plan their lives in relation to them, using the script as a reference for what is possible, desirable, or appropriate.

This dual function reinforces the alignment between memory and expectation, creating a feedback loop in which cultural norms influence both recollection and aspiration. Despite their pervasive influence, life scripts are not rigid determinants. They vary across cultures and historical contexts, reflecting differences in social organization, values, and practices. What constitutes a significant

milestone in one context may be negligible in another, indicating that the structure of memory is contingent upon the cultural environment in which it develops. At the same time, deviations from the script play a crucial role in the construction of individuality. Events that diverge from expected patterns can become particularly salient, not because they fit the script but because they challenge it, providing opportunities for reinterpretation and the assertion of personal identity. The relationship between life scripts and identity reveals a fundamental tension between conformity and uniqueness. On one hand, alignment with cultural narratives fosters a sense of belonging, situating the individual within a shared framework that connects personal experience to collective tradition. On the other hand, divergence from these narratives allows for the expression of individuality, highlighting the ways in which personal trajectories can depart from established norms. Identity thus emerges as a negotiation between these forces, shaped by both the constraints of cultural expectation and the possibilities of deviation. In this interplay, memory becomes the medium through which culture and self are integrated. The stories individuals tell about their lives are neither purely personal nor entirely collective; they are hybrid constructions, combining unique experiences with shared structures. The coherence of these stories depends on the ability to align personal events with culturally meaningful patterns, while their distinctiveness arises from the ways in which individuals adapt, reinterpret, or resist those patterns.

Memory, therefore, does not simply preserve the past but organizes it according to principles that reflect both the individual and the culture to which they belong. To understand how memories shape life stories is to recognize that the past is always filtered through frameworks that give it form. The events that define a life are not selected solely because they occurred but because they can be situated within a narrative that makes sense within a given cultural context. Life scripts provide the scaffolding for this narrative, enabling individuals to construct stories that are both intelligible and meaningful. In doing so, they reveal that the self is not only remembered but composed, assembled through the interaction of personal experience and cultural structure, where memory serves not as a mirror of life but as its organizing principle.

*Berntsen, D. and Bohn, A. (2009) Cultural Life Scripts and Individual Life Stories. In: Boyer, P. (ed.) Memory in Mind and Culture. Cambridge: Cambridge University Press.*

### ***The Past We Agree On: How Groups Manufacture Memory***

In Dorthe Berntsen and Annette Bohn's *Cultural Life Scripts and Individual Life Stories*, the phenomenon of shared pasts reveals itself not as a passive inheritance but as an active construction, where groups do not simply remember together but continuously produce the very narratives they come to accept as their history. What is often called collective memory dissolves under scrutiny into a series of coordinated acts of remembering, where individuals align their recollections through repetition, selection, and reinterpretation. The past, in this sense, is not preserved but negotiated, shaped by the needs of the present and stabilized through social processes that render certain versions of events authoritative while others fade into obscurity. The distinction between collective memory and collective remembering becomes crucial in understanding this dynamic. Memory suggests a static repository, a shared archive accessible to all members of a group, but remembering emphasizes process, highlighting the ongoing activity through which narratives are formed and sustained. This activity is guided not by the pursuit of detached accuracy but by the demands of identity, cohesion, and meaning. Groups do not seek to reconstruct the past as it was but to produce a version of it that serves current purposes, whether those purposes are political, emotional, or symbolic.



In this transformation, the past becomes usable, adapted to reinforce a sense of belonging and continuity. The mechanisms that sustain these shared narratives are rooted in ordinary cognitive processes. Repetition plays a central role, as memories that are frequently retrieved become more stable and more widely shared. Rituals, commemorations, and institutional practices ensure that certain events are continually revisited, embedding them within the collective consciousness. Feedback further reinforces this process, as social environments—schools, media, public discourse—promote particular interpretations, aligning individual recollections with dominant narratives. Emotional intensity amplifies these effects, making certain events more memorable and more likely to be transmitted. Dramatic occurrences, especially those accompanied by strong affect, acquire a privileged status, not because they are inherently more significant, but because they engage the cognitive systems that prioritize emotionally charged information. The construction of shared memory can be observed most clearly in moments of collective disruption, where new narratives must be formed rapidly. In the aftermath of major events, language itself begins to shift, as individuals move from personal to collective modes of expression, replacing the singular perspective with a communal one. Stories are told and retold, gradually converging into standardized forms that reflect the group's emerging understanding. This convergence is not the result of deliberate coordination but of countless interactions in which individuals adjust their accounts in response to others, producing a coherent narrative that appears unified despite its distributed origin. The role of power and politics introduces another dimension to this process. Collective remembering is rarely neutral; it is shaped by interests that seek to direct how the past is understood. In times of crisis, narratives can be mobilized to produce unity, aligning individual perspectives with collective goals. The perception of threat intensifies this alignment, encouraging the formation of shared interpretations that support group cohesion and action. These dynamics reveal that memory is not only cognitive but also strategic, functioning as a resource in the negotiation of social and political realities. The difficulty of defining collective memory reflects the complexity of these interactions. The term encompasses a range of phenomena, from shared narratives and public commemorations to deeper patterns of interpretation that guide how events are understood. This ambiguity is not merely conceptual but reflects the layered nature of memory itself, which operates simultaneously at multiple levels. At one level, there are specific narratives detailing particular events, providing concrete accounts that can be recounted and transmitted. At another level, there exist deeper structures—abstract templates that organize these narratives into recognizable forms.

These deep patterns simplify complexity, allowing diverse events to be interpreted through familiar schemas, ensuring their accessibility and persistence. The tension between memory and history further clarifies the function of collective remembering. While historical inquiry seeks to distance itself from the present, analyzing events within their original context, collective memory collapses this distance, bringing the past into alignment with current concerns. It simplifies, dramatizes, and moralizes, transforming complex events into stories that can be easily understood and emotionally engaged with. This transformation is not a distortion in the conventional sense but a reconfiguration, one that prioritizes relevance over accuracy. The resulting narratives may diverge from historical accounts, but they fulfill a different function, sustaining identity and guiding collective action. Social dynamics ensure that these narratives remain both stable and contested. Generational experience plays a significant role, as individuals who share formative events develop similar patterns of recall, contributing to the coherence of group memory. At the same time, differences in perspective—shaped by factors such as social position, belief, and experience—introduce variation, leading to ongoing negotiation over the meaning of the past. Even when confronted with new information, established narratives often resist change, as they are embedded within deeper structures that define group identity. The persistence of these

narratives demonstrates that memory is not easily revised once it has become integrated into the framework through which a group understands itself.

To understand how shared memories are constructed is to recognize that the past is never simply given. It is produced through processes that combine individual cognition with social interaction, shaped by repetition, emotion, and power. These processes transform events into narratives, narratives into identities, and identities into the frameworks through which future events will be interpreted. Collective remembering thus becomes a continuous act of creation, in which the past is not only recalled but reconstituted, ensuring its relevance in a changing present. In this ongoing reconstruction, memory reveals itself as both a cognitive and a cultural phenomenon, binding individuals into groups through the shared stories that define who they are and how they came to be.

*Berntsen, D. and Bohn, A. (2009) Cultural Life Scripts and Individual Life Stories. In: Boyer, P. (ed.) Memory in Mind and Culture. Cambridge: Cambridge University Press.*

### ***Tradition as a Cognitive System: From Inheritance to Reconstruction***

In Pascal Boyer's *Tradition as Truth and Communication*, the notion of tradition is removed from its anthropological vagueness and redefined as a structured cognitive process, one that cannot be understood as mere inheritance but must be analyzed as a system of mental operations and social interactions that actively reconstruct the past in the present. Anthropology, despite its historical focus on traditional societies, has long operated without a coherent theory of tradition itself, relying instead on implicit assumptions that treat tradition as self-evident. This absence is not accidental but reflects a deeper conceptual problem: tradition has been used as a descriptive label rather than an explanatory category, grouping together diverse phenomena without identifying the mechanisms that sustain them. What appears as continuity across generations is thus left unexplained, obscured by the very term meant to describe it. The difficulty begins with the definition of tradition. When understood broadly as everything transmitted from past to present, it becomes analytically useless, encompassing too much to allow for precise investigation. Such an expansive notion dissolves distinctions between different forms of cultural transmission, preventing the identification of shared properties that could ground a scientific account. To address this, the focus must shift from tradition as a general category to specific forms of practice in which socially significant truths are communicated through ritualized speech and action.

These practices are not defined by their age or persistence alone but by the structured ways in which they reference prior occurrences, creating a sense of continuity that is itself produced through repetition. By narrowing the scope in this way, tradition becomes a phenomenon that can be examined in terms of its underlying processes rather than its superficial characteristics. The emphasis on oral transmission further clarifies the nature of these processes. Unlike written traditions, which rely on the preservation of texts, oral traditions depend on interaction, where each act of communication involves both recall and reconstruction. What is transmitted is not a fixed message but a pattern of representation that is recreated in each instance of performance. This distinction reveals that stability in tradition does not arise from exact replication but from the constraints that guide variation, ensuring that certain features are maintained even as others change. The persistence of tradition, therefore, is not a matter of fidelity to an original form but of the regularity with which specific patterns are reproduced across contexts. To understand how such patterns are maintained, it is necessary to examine the cognitive processes involved. Traditional practices exist not only in social space but in the minds of individuals who perceive, interpret, and

reproduce them. Yet anthropological accounts have often neglected this dimension, either by importing psychological assumptions without testing them or by treating cognition as a black box whose internal workings are irrelevant to observable phenomena. Both approaches fail to provide a satisfactory explanation, as they either rely on unexamined premises or avoid the question altogether. A more rigorous account requires the integration of cognitive psychology, where hypotheses about memory, inference, and communication can be applied to the study of cultural transmission. This integration allows for a redefinition of tradition as an interaction between cognitive constraints and social dynamics. Individuals do not simply receive traditions; they process them through mechanisms that shape how information is encoded, retained, and expressed. These mechanisms impose limits on what can be transmitted, favoring certain forms of representation over others.

As a result, traditions are not arbitrary collections of practices but structured systems that reflect the properties of the minds that sustain them. The apparent stability of tradition emerges from the compatibility between these cognitive constraints and the forms of communication through which traditions are expressed. In this perspective, many of the concepts traditionally used in anthropology lose their explanatory power. Terms such as symbol, cultural model, or socialization often function as placeholders, naming phenomena without clarifying the processes that produce them. By replacing these terms with more precise hypotheses, it becomes possible to move from description to explanation, identifying the mechanisms that underlie the transmission of tradition. This shift requires a methodological change, where ethnographic examples are treated not as definitive evidence but as instances that illustrate broader patterns. The goal is not to accumulate cases but to develop general principles that can account for them. The resulting framework transforms the understanding of tradition. It is no longer seen as a passive repository of inherited knowledge but as an active process of reconstruction, where each act of transmission involves interpretation, adaptation, and re-creation.

The past is not preserved intact but reassembled through practices that give it form and meaning in the present. This reconstruction is guided by both cognitive and social factors, ensuring that traditions remain recognizable while allowing them to evolve. The continuity of tradition thus depends not on the stability of its content but on the regularity of the processes that generate it. By grounding the study of tradition in cognitive theory, this approach provides a basis for a scientific understanding of cultural transmission. It replaces vague generalizations with testable hypotheses, linking the persistence of tradition to the mechanisms of memory, communication, and social interaction. In doing so, it reveals that tradition is not an external force acting upon individuals but a system that exists through their participation, sustained by the interplay between the structures of the mind and the practices of the group. Tradition becomes, in this sense, a form of cognition distributed across individuals, where the collective past is continuously produced through the coordinated activity of remembering, interpreting, and communicating.

*Boyer, P. (1990) Tradition as Truth and Communication: A Cognitive Description of Traditional Discourse. Cambridge: Cambridge University Press.*

### ***Repetition Without Memory: How Tradition Recreates Itself***

In Pascal Boyer's *Tradition as Truth and Communication*, the apparent simplicity of repetition is exposed as a conceptual illusion, revealing that what is commonly taken for granted—the persistence of traditions across time—cannot be explained by vague appeals to cultural continuity or inert worldviews. The problem lies not in the difficulty of explaining repetition, but in the way

the question has been framed. Anthropological accounts have often replaced the observable recurrence of interactions with abstract notions of conserved beliefs, thereby shifting attention away from the actual processes through which repetition occurs. In doing so, they have overlooked the decisive role of cognition, treating memory as a passive storehouse rather than as an active system that transforms, filters, and reconstructs what it retains. This mischaracterization leads to circular explanations, where the existence of tradition is explained by invoking tradition itself, leaving the phenomenon analytically untouched. To move beyond this impasse requires a fundamental redefinition of the problem.

Repetition must be understood not as the survival of content but as the outcome of specific interactions in which participants represent, interpret, and reproduce certain features of communicative events. The persistence of these features cannot be attributed to a general tendency toward conservatism, but must be traced to the mechanisms that govern how information is encoded and shared within a group. This shift transforms repetition from a descriptive label into an empirical question: under what conditions do particular aspects of an interaction become stable enough to be reproduced across instances? The answer lies in the interplay between cognitive constraints and social distribution. When individuals engage in communicative acts, they do not replicate them mechanically; they reconstruct them according to patterns that are shaped by memory, attention, and inference. These patterns determine which elements of an interaction are retained and which are altered or discarded. Repetition, therefore, is selective, preserving certain surface features while allowing variation in others. What appears as continuity is in fact the regular recurrence of specific structures that are consistently reconstructed because they fit the cognitive capacities of those who transmit them. Tradition, in this perspective, is not a static entity but a type of interaction characterized by three interdependent features. It is first an interaction, meaning that it exists only through the participation of individuals who engage with one another in specific contexts. It is second a form of communication, where meanings are conveyed, interpreted, and transformed through shared representations. It is third a process that results in repetition, not as a direct replication of prior events but as the re-emergence of recognizable patterns across different instances. These features, while seemingly obvious, have been obscured by theoretical approaches that prioritize abstraction over observation, replacing concrete processes with generalized concepts that fail to capture the dynamics of transmission. By focusing on interaction and communication, the study of tradition can be grounded in observable phenomena. The repetition of traditional forms becomes a matter of how particular configurations of speech and action are stabilized through repeated performance.

This stabilization depends on the alignment between the structure of the interaction and the cognitive mechanisms that process it. When certain features are easily represented, recalled, and communicated, they are more likely to be reproduced, creating the appearance of continuity. Conversely, elements that do not align with these constraints are more prone to variation or disappearance. The persistence of tradition is thus not uniform but patterned, reflecting the selective pressures imposed by cognition and communication. The development of a rigorous theory of tradition requires the formulation of explicit hypotheses that can be tested against empirical data. Rather than relying on broad generalizations, the analysis must identify the specific factors that contribute to the repetition of particular forms. These factors may include the salience of certain features, the structure of the interaction, and the ways in which representations are distributed within a group. By isolating these variables, it becomes possible to move from descriptive accounts to explanatory models, where the dynamics of tradition can be understood in terms of identifiable mechanisms.

This approach repositions tradition within a broader framework of human cognition. It is no longer seen as an external force that imposes continuity, but as a process that emerges from the interaction between individuals and the cognitive systems through which they interpret and reproduce information. The repetition of tradition is not the preservation of an original form but the result of repeated acts of reconstruction, each shaped by the constraints and possibilities of the mind. In this sense, tradition becomes a dynamic phenomenon, sustained not by the fidelity of memory but by the regularity of the processes that generate it. What is repeated is not the past itself, but a pattern that remains stable because it can be continuously recreated.

*Boyer, P. (1990) Tradition as Truth and Communication: A Cognitive Description of Traditional Discourse. Cambridge: Cambridge University Press.*

### ***The Meaning That Refuses Definition: How “Empty” Concepts Organize Tradition***

In Pascal Boyer’s *Tradition as Truth and Communication*, the apparent failure of certain cultural categories to admit clear definition is revealed not as a weakness of traditional thought but as a clue to its deeper cognitive structure. Anthropological practice has long relied on the assumption that to understand a culture is to translate its categories into shared definitions, as if meaning were always reducible to stable, explicit representations in the minds of participants. Yet when confronted with central notions in ritual and traditional interaction, this assumption collapses. These categories resist definition, not accidentally but systematically, exposing the inadequacy of models that equate meaning with clearly articulated content. The difficulty lies in the nature of these categories themselves. In everyday language, terms such as those referring to animals or professions can be anchored in relatively stable and shared representations. Their use depends on recognizable features that allow for consistent classification. However, the categories that structure traditional discourse—those that organize beliefs about forces, substances, or unseen agencies—do not function in this way. They are not defined by a set of necessary and sufficient properties, nor are they easily articulated by those who use them. Instead, they operate through a network of associations, effects, and contexts, making their meaning inseparable from their use.

The Fang notion of *evur* exemplifies this condition. It is central to explanations of misfortune, power, and social relations, yet those who invoke it cannot specify what it is in any precise sense. Its presence is inferred from consequences, from patterns of interaction and interpretation, rather than from direct description. This ambiguity is not a deficiency to be corrected but a feature that allows the concept to function across multiple domains, linking otherwise disparate experiences into a coherent interpretive framework. The category persists not because it is clearly defined, but because it is sufficiently flexible to accommodate a range of situations while remaining recognizable. Traditional anthropological approaches have struggled to account for such phenomena. Structuralist theories have treated these categories as empty signifiers, placeholders that fill gaps in symbolic systems without possessing intrinsic meaning. This view captures the indeterminacy of the concepts but fails to explain their constrained use. These notions are not applied arbitrarily; their deployment follows patterns that reflect implicit rules, suggesting that they are more than mere tokens in a symbolic game. On the other hand, intellectualist approaches have attempted to elevate these categories to the status of implicit theories, comparable to scientific constructs. Yet this move introduces its own difficulties, as it assumes a level of coherence and consistency that is not borne out by observation. The supposed theories remain inaccessible and often contradictory, raising the question of how they can guide behavior if they are neither explicit nor stable. A more precise account emerges when attention shifts from definitions to contexts of use. The meaning of these categories becomes intelligible only when situated within different

registers of discourse, each governed by its own constraints and expectations. In common discourse, such notions are invoked in general and often inconclusive ways, drawing on shared stereotypes that provide a loose framework for interpretation. In gossip, they acquire specificity, applied to particular individuals or events, but at the cost of reliability, as such claims are shaped by personal interests and limited perspectives.

It is within expert discourse that these categories achieve their highest degree of authority. Here, their application is tied to recognized forms of expertise, where specialists claim access to domains of experience unavailable to others. The authority of expert statements does not derive from clearer definitions but from the perceived legitimacy of the experiences on which they are based. Expertise in this domain is not acquired through the refinement of abstract knowledge but through processes of initiation that generate salient experiences. These experiences, often structured by ritual, provide the basis for interpretation, allowing experts to apply ambiguous categories with confidence and precision in specific contexts. The knowledge they possess is not theoretical in the conventional sense but experiential, rooted in memories that serve as templates for understanding new situations. This mode of acquisition distinguishes traditional categories from those grounded in everyday perception, highlighting the role of memory and experience in shaping their use. The implications of this analysis extend beyond the specific case of *evur*. They challenge the assumption that categories must be defined in order to function, suggesting instead that variability in representation can be central to their effectiveness. Traditional categories do not depend on uniform understanding; they operate precisely because they allow for differences in interpretation, enabling individuals to engage with them in ways that are contextually appropriate.

This flexibility ensures their persistence, as they can adapt to changing circumstances without losing their identity. In this perspective, meaning is no longer located in definitions but in patterns of use, shaped by cognitive processes and social interactions. Categories become tools for organizing experience, not by specifying what things are, but by guiding how they are interpreted. The study of such categories reveals that the apparent emptiness of their content is not a lack but a condition of their power. It is through this openness that they integrate diverse phenomena, sustain their relevance, and anchor the systems of thought and interaction that constitute tradition.

*Boyer, P. (1990) Tradition as Truth and Communication: A Cognitive Description of Traditional Discourse. Cambridge: Cambridge University Press.*

### ***The Birth of Thought in Sound: From Image to Word in Human Cognition***

In R. F. Berg's *On the Origin of Verbal Thinking: Factors That Might Have Contributed to the Acquisition of Language by Man*, language emerges not as a mere communicative tool but as the decisive transformation through which human thought itself becomes structured, abstract, and self-reflective. The starting point is not clarity but contradiction, where ordinary speech already reveals that language exceeds logic, expressing internal states that cannot be reduced to coherent propositions. Statements that appear inconsistent are not failures of language but indications of its true function: to articulate the tensions between emotion, intention, and perception. From the outset, language is shown to operate across multiple dimensions simultaneously, resisting any attempt to confine it within purely rational or purely expressive frameworks. This multiplicity reflects a deeper division in the study of language, historically split between those who emphasize its structural and logical properties and those who stress its symbolic and emotional character. The opposition mirrors broader debates about the nature of the mind, whether it is best understood as a system of localized functions or as an integrated whole.

Within this context, language cannot be reduced to a single purpose. It simultaneously expresses feeling, directs action, and represents the world, with each utterance combining these functions in varying proportions. The significance of language lies precisely in this synthesis, where the boundaries between expression, command, and description are constantly negotiated. To grasp the origin of verbal thinking, it is necessary to distinguish it from the form of cognition that precedes it. Preverbal thinking is not absent but operates through images, associations, and affective states that lack the constraints of logical sequence. It is most clearly manifested in dreams, where experiences unfold without stable reference to time, space, or causality. In this state, thought is fluid and syncretic, merging elements that would later be separated by conceptual distinctions. The transition to verbal thinking introduces order into this flux, as language imposes structure on experience, enabling the differentiation of objects, events, and relations. Words do not merely label reality; they reorganize it, transforming diffuse impressions into discrete concepts that can be manipulated and communicated. This transformation depends on capacities that are only partially present in other species. While animals exhibit forms of symbolic sensitivity and vocal communication, these systems remain limited in their ability to assign stable and transferable meanings to sounds. Human language extends beyond immediate contexts, allowing symbols to refer to absent or abstract entities. This capacity does not arise from isolated invention but from collective processes in which vocalizations acquire meaning through repeated interaction. The emergence of language is thus inseparable from social life, as shared practices stabilize the associations between sound and meaning. The transition from preverbal to verbal thought is not abrupt but unfolds through intermediate stages in which perception, emotion, and action remain closely intertwined. Early forms of symbolic activity likely involved the externalization of sensory experiences through ritual and artistic expression, where rhythm and repetition played a central role.

Collective activities such as chanting and dancing would have reinforced patterns of vocalization, embedding them within shared emotional contexts. These patterns gradually acquired consistency, enabling the formation of associations that could be reproduced and recognized. Two mechanisms are particularly significant in this process. The first is the capacity to delay immediate reactions, allowing attention to be redirected toward the relations between experiences rather than their immediate consequences. This delay creates the conditions for abstraction, as elements of experience can be recombined and interpreted independently of their original context. The second is the role of misunderstanding, where sounds are initially interpreted as meaningful even when their communicative function is unclear. Such misinterpretations can generate new associations, which, if reinforced through interaction, become integrated into the emerging system of language. Through these processes, the diffuse field of preverbal thought is gradually reorganized into a system capable of sustaining stable meanings. The development of fully articulated language involves further differentiation and refinement. Variations in sound and context allow for the distinction of meanings, while the combination of elements produces increasingly complex structures. Importantly, this evolution does not proceed through the accumulation of complexity alone but through processes of simplification and reorganization, where patterns are made more efficient and adaptable. Social reinforcement ensures that these patterns are shared, transforming individual innovations into collective conventions. Language thus becomes a system that both constrains and enables thought, providing the framework within which cognition operates. The implications of this transformation are profound. Language enables the abstraction necessary for culture, allowing humans to construct systems of knowledge, belief, and value that extend beyond immediate experience.

At the same time, it introduces a distance between the individual and the sensory world, as experience is mediated through conceptual structures that both reveal and obscure reality. The very capacity that allows for reflection and communication also imposes limits, shaping what can be thought and how it can be expressed. In this tension between immediacy and abstraction, language defines the human condition. It is not simply a medium for thought but the form through which thought becomes possible, embedding within it the contradictions of emotion and reason, imagination and logic.

*Berg, R. F. (1969) On the Origin of Verbal Thinking: Factors That Might Have Contributed to the Acquisition of Language by Man. Journal of the American Psychoanalytic Association.*

### ***The Chaos Within Judgment: Why Consistency Fails the Human Mind***

In Daniel Kahneman's *Noise: A Flaw in Human Judgment*, the illusion of human consistency is dismantled, revealing that error in judgment does not arise solely from systematic distortion but also from an overlooked and pervasive variability that infiltrates even the most serious decisions. While bias has long dominated the discourse as the primary flaw in reasoning, noise exposes a deeper instability: the inability of individuals and institutions to produce the same judgment under identical conditions. This variability is not incidental but structural, embedded in the very processes through which humans interpret, evaluate, and decide. The distinction between bias and noise marks a fundamental shift in understanding error. Bias is directional; it pushes judgments consistently away from a target, creating patterns that can be identified and corrected. Noise, by contrast, lacks direction. It disperses judgments unpredictably, producing inconsistency without a clear cause. Where bias misleads through regularity, noise undermines through randomness. The metaphor of scattered shots captures this contrast, but its implications extend far beyond illustration. In real-world contexts, the same case, the same evidence, or the same patient can yield different outcomes depending on who makes the judgment, when it is made, and under what conditions.

The result is not merely inaccuracy but inequality, where outcomes depend on factors unrelated to the case itself. This phenomenon permeates domains that are assumed to be governed by expertise and objectivity. In medicine, diagnoses vary between practitioners even when interpreting the same data, suggesting that clinical judgment is influenced by factors beyond evidence. In legal systems, sentencing decisions fluctuate between judges, revealing that justice is not uniformly applied but contingent on individual tendencies and contextual variables. In forecasting and evaluation, professionals produce divergent assessments that cannot be reconciled through simple error correction. Even fields that claim high precision, such as forensic analysis, are not immune to variability, demonstrating that no domain relying on human judgment is free from noise. The persistence of noise is partly due to its invisibility. Unlike bias, which can often be detected through consistent deviation, noise requires comparison across multiple judgments to become apparent. Without systematic analysis, variability remains hidden, allowing institutions to operate under the assumption of coherence where none exists. This invisibility is reinforced by a cognitive preference for narratives that explain error in terms of identifiable causes. Bias offers such narratives; noise does not. It resists explanation, appearing as fluctuation rather than failure, and is therefore more easily tolerated or ignored. Yet its consequences are no less significant. If bias distorts outcomes, noise destabilizes them, introducing unpredictability that undermines both accuracy and fairness. Understanding noise requires recognizing its different forms. Some variability arises from general tendencies, where individuals consistently exhibit higher or lower thresholds in their judgments. Other forms emerge from patterns unique to each decision-maker,



reflecting differences in how they weigh specific factors. These layers of variability interact, producing a complex landscape in which judgments diverge even when guided by the same principles.

The implication is that expertise does not eliminate noise; it may simply redistribute it, embedding variability within the very processes that define professional competence. The response to noise cannot rely on identifying its causes alone, as its randomness resists direct correction. Instead, it requires the implementation of practices that reduce variability regardless of its source. Decision hygiene represents such an approach, focusing on the conditions under which judgments are made rather than on the content of those judgments. By structuring decisions, separating components, and ensuring independent evaluation, it becomes possible to limit the influence of irrelevant factors. Statistical thinking further supports this process, anchoring judgments in broader patterns rather than isolated impressions. The aggregation of independent assessments reduces individual variability, producing outcomes that are more stable than any single judgment. These measures do not eliminate human judgment but reshape it, introducing constraints that enhance consistency without erasing individuality. The goal is not uniformity of thought but reliability of outcome, where differences in perspective do not translate into arbitrary disparities. This distinction is crucial, as it preserves the value of human insight while addressing the instability that accompanies it. The challenge lies not in replacing judgment with rigid systems but in designing processes that harness its strengths while mitigating its weaknesses. The broader implications of noise extend beyond technical correction to ethical considerations. Variability in judgment translates into variability in consequence, affecting lives in ways that cannot be justified by randomness.

When similar cases yield different outcomes, the legitimacy of institutions is called into question, as fairness depends on consistency as much as on correctness. Reducing noise, therefore, is not only a matter of improving accuracy but of ensuring equity, aligning decisions with principles that transcend individual variability. In revealing the hidden dimension of error, noise transforms the understanding of human judgment. It shows that inconsistency is not an exception but a condition, one that must be addressed if decisions are to be both accurate and fair. The pursuit of a less noisy world is thus not an abstract ideal but a practical necessity, requiring a reconfiguration of how judgments are made, evaluated, and understood.

*Kahneman, D., Sibony, O. and Sunstein, C. R. (2021) Noise: A Flaw in Human Judgment. London: William Collins.*

### ***The Memory of Form: Beyond Mechanism in the Life of Patterns***

In Rupert Sheldrake's *Morphic Resonance*, the dominant mechanistic account of life is confronted with a radical question: whether the forms and behaviors of living systems can truly be reduced to the interactions of their physical components, or whether something persists beyond mechanism—a continuity of pattern that transcends individual instances. The mechanistic paradigm, long established as the foundation of modern biology, has achieved remarkable success by treating organisms as complex machines governed by physical and chemical laws. Its explanatory power, particularly in molecular biology, has reshaped our understanding of life at the smallest scales. Yet this success conceals a deeper limitation, for the mechanistic model explains how processes occur without fully accounting for why they take the specific forms they do. The emergence of structure, the persistence of species-specific patterns, and the apparent regularity of development resist complete reduction to local interactions. The critique of mechanism does not arise from its failure in practice but from its incompleteness in principle. To move beyond it requires more than

dissatisfaction; it demands the formulation of hypotheses that can be tested and potentially falsified. Earlier attempts to challenge mechanism, such as vitalism, faltered precisely because they invoked undefined forces that could neither be measured nor rigorously examined.

The lesson is clear: any alternative must retain the empirical discipline that gave mechanism its strength while expanding the scope of explanation. Within this context, organismic approaches offer a different perspective, emphasizing the hierarchical organization of living systems and the emergence of properties that cannot be predicted from their components alone. Here, the organism is not a machine assembled from parts but a dynamic whole whose structure influences the behavior of its elements. The concept of morphogenetic fields arises from this shift, proposing that the development of form is guided by fields that organize matter into characteristic patterns. Yet these fields remain ambiguous unless they are specified in terms that allow empirical investigation. Sheldrake's hypothesis of formative causation attempts to provide such specificity by proposing that these organizing fields are shaped by the past. According to this view, the forms and behaviors of systems are influenced by previous instances of similar systems, not through direct physical transmission but through a process of resonance that links them across time. A crystal does not merely form according to the laws of chemistry; it follows patterns established by earlier crystals. An organism develops not only through genetic instructions but through the accumulated history of its species. Behavior, too, is subject to this influence, as patterns learned in one context may facilitate similar learning elsewhere. The implication is that nature possesses a kind of memory, not localized in individual systems but distributed across the history of similar forms. This conception redefines causation itself. Instead of being confined to immediate physical interactions, causation extends through similarity, where the repetition of patterns reinforces their future occurrence. The probability of a particular form or behavior is not determined solely by present conditions but is shaped by the cumulative weight of past instances.

This introduces a new dimension to explanation, where history becomes an active factor in the present, influencing outcomes in ways that are not reducible to local mechanisms. The hypothesis thus challenges the assumption that the laws of nature are fixed and universal, suggesting instead that they may evolve as patterns become established through repetition. Such a proposal inevitably raises questions about evidence and testability. The strength of the mechanistic paradigm lies in its capacity to generate precise predictions and measurable effects. For an alternative to be viable, it must do the same. Sheldrake's hypothesis attempts to meet this requirement by proposing specific phenomena that could be observed if morphic resonance operates as described. For example, if a particular task is learned by a group of organisms, subsequent groups should acquire the same task more easily, even in isolation. Such predictions, if confirmed, would indicate that learning is not confined to individual experience but is influenced by a broader field of similarity. The challenge lies in designing experiments that can distinguish these effects from conventional explanations, ensuring that observed patterns cannot be attributed to known mechanisms. Beyond its empirical claims, the hypothesis invites a reconsideration of the relationship between part and whole. The mechanistic view begins with components and builds upward, seeking to explain complexity through the accumulation of simpler interactions. The organismic perspective reverses this direction, treating the whole as primary and the parts as expressions of its organization. Morphic resonance extends this reversal further, introducing a temporal dimension in which the whole is not only spatially integrated but historically constituted. The present form of a system becomes inseparable from its past, as each instance contributes to a pattern that shapes future occurrences. The implications of this view extend beyond biology into a broader understanding of nature. If patterns are reinforced through repetition, then stability itself becomes a product of

history rather than an inherent property of matter. The regularities observed in physical and biological systems would then reflect accumulated tendencies rather than immutable laws.

This perspective blurs the boundary between explanation and description, as the patterns that require explanation are themselves the result of prior repetitions. It also introduces a new form of continuity, where the persistence of form is not guaranteed by structure alone but by the resonance of similarity across time. In proposing such a framework, the hypothesis of morphic resonance does not simply add a new element to existing theory; it reorients the entire approach to understanding life and nature. It suggests that the search for explanation must extend beyond immediate mechanisms to include the history of patterns that give rise to them. Whether this proposal can be sustained empirically remains an open question, but its conceptual significance lies in its challenge to the assumption that the present can be fully understood without reference to the past. By introducing the idea that form itself has memory, it offers a vision of nature in which repetition is not mere recurrence but the very process through which order is maintained and transformed.

*Sheldrake, R. (1981) A New Science of Life: The Hypothesis of Formative Causation. London: Blond & Briggs.*

### ***The Architecture of Possibility: Four Visions of Causation and Meaning***

In Rupert Sheldrake's Morphic Resonance, the hypothesis of formative causation does not conclude inquiry but opens it, revealing that any attempt to explain the regularities of nature inevitably leads beyond empirical description into competing metaphysical interpretations. The hypothesis itself remains within the domain of science insofar as it proposes testable patterns—suggesting that present forms are shaped by past similar forms—but it deliberately refrains from addressing the origin of novelty, the emergence of consciousness, or the ultimate direction of evolution. These questions cannot be resolved by observation alone; they demand a broader framework within which scientific findings acquire meaning. What follows is not a single answer but a spectrum of possibilities, each offering a different interpretation of how causation, consciousness, and purpose are related. The first possibility preserves the structure of modern science while extending its content. Modified materialism accepts the reality of morphic fields but treats them as part of the physical world, thereby maintaining the principle that all causation is ultimately material. In this view, the universe remains causally closed, and consciousness does not intervene in physical processes but accompanies them as a byproduct.

The apparent continuity of memory is no longer attributed to storage within the brain but to resonance with past patterns, yet this shift does not introduce purpose or intention into nature. Creativity becomes an expression of probabilistic processes, where novelty arises through chance rather than design. The universe, though enriched by new mechanisms, remains fundamentally indifferent, its processes unfolding without intrinsic direction. The second perspective breaks with this closure by restoring agency to the conscious self. Here, consciousness is not a passive reflection but an active force capable of influencing both body and world. The traditional image of the mind as a separate entity acting upon a mechanical body is replaced by a more integrated model, where the self interacts with morphic fields rather than with inert matter. Action becomes a composite of multiple forms of causation: the physical transfer of energy, the shaping influence of formative fields, and the intentional direction provided by consciousness. Within this framework, creativity is no longer reducible to chance; it emerges from the capacity of the self to select among possibilities and to initiate new patterns. Yet this agency is not absolute. It operates

within constraints imposed by the accumulated patterns of the past, suggesting that freedom is always situated within a field of prior forms. The origin of these forms, however, remains unexplained, leaving a gap between individual creativity and the larger processes of evolution. The third perspective shifts the locus of creativity from the individual to the universe itself. Instead of attributing novelty to isolated agents, it proposes that creativity is a fundamental property of nature, immanent at every level of existence. The universe becomes a dynamic system in which new forms arise through an intrinsic impulse toward variation and transformation.

This impulse may manifest through different scales, from biological development to cosmic evolution, suggesting a hierarchy of creative processes that interpenetrate and reinforce one another. Human creativity, in this context, is not an isolated phenomenon but an expression of a broader tendency that permeates the natural world. Experiences of connection with larger wholes—whether ecological or cosmic—can be interpreted as moments in which this underlying creativity becomes perceptible. Yet this vision encounters its own limitation, for while it accounts for the presence of novelty, it does not provide a clear account of direction or purpose. Creativity operates, but without an overarching aim, its outcomes remain open-ended and indeterminate. The fourth perspective introduces a dimension that transcends the universe itself. Here, the patterns observed in nature are understood as expressions of a creative source that lies beyond the system it generates. This source is conceived as conscious and purposive, providing not only the origin of forms but also their direction. The multiplicity of processes within the universe—physical, biological, and cognitive—are unified by their participation in a larger intentional order. Creativity at every level is thus derivative, reflecting a more fundamental act of creation that sustains and guides the whole. In this view, the apparent openness of evolution is not aimless but oriented toward ends that may not be fully accessible within the system itself. The universe becomes intelligible as a manifestation of a deeper unity, where the diversity of forms is integrated within a coherent purpose. These four perspectives do not simply offer alternative explanations; they redefine the meaning of causation itself. In the first, causation is confined to material processes, with all phenomena reducible to physical interactions. In the second, causation includes conscious agency, allowing intention to shape outcomes alongside physical and formative influences. In the third, causation is expanded to include an immanent creativity that operates throughout nature, dissolving the boundary between mechanism and spontaneity. In the fourth, causation ultimately derives from a transcendent source, integrating all processes within a purposive framework.

The hypothesis of formative causation functions as a point of convergence for these possibilities, compatible with each yet identical to none. It reveals that the interpretation of scientific findings depends on the metaphysical assumptions through which they are understood. By loosening the dominance of the mechanistic paradigm, it creates space for alternative accounts of reality, where the relationship between past and present, form and process, becomes open to redefinition. The question is no longer whether patterns exist, but how they are to be understood: as products of chance, expressions of agency, manifestations of immanent creativity, or reflections of a transcendent order. In this expanded field of inquiry, science and philosophy converge, not in the resolution of their differences, but in the recognition that the nature of reality cannot be fully captured within a single framework.

*Sheldrake, R. (1981) A New Science of Life: The Hypothesis of Formative Causation. London: Blond & Briggs.*

***The Morality Beneath Politics: How Minds Divide the Same World***

In George Lakoff's *Moral Politics: How Liberals and Conservatives Think*, political conflict is revealed not as a disagreement over isolated issues but as a clash between deep moral frameworks that structure perception, judgment, and identity. What appears on the surface as debate over policy is, at its core, a divergence in how reality itself is morally organized. Each side does not merely argue different conclusions; it inhabits a different interpretive system in which facts, values, and priorities are arranged according to distinct principles of right and wrong. This division persists and intensifies not because of ignorance or malice, but because these moral systems operate largely outside conscious awareness, embedded in the neural architecture of thought. The claim that all politics is moral transforms the understanding of public discourse. Political positions are not neutral calculations of benefit and cost; they are moral claims about how the world ought to be. When individuals advocate for policies, they do so from within a framework that defines what counts as fairness, responsibility, or justice. These frameworks are not interchangeable, and they are not easily reconciled, because they arise from different conceptual metaphors that structure reasoning itself. The conservative orientation, organized around a model often described as strict authority and discipline, prioritizes order, self-reliance, and hierarchical stability.

The progressive orientation, by contrast, emphasizes care, mutual responsibility, and the nurturing of collective well-being. These models are not simply opinions but systems that generate coherent positions across a wide range of issues, linking seemingly unrelated policies into unified moral visions. Identity becomes inseparable from these frameworks. Individuals understand themselves as moral agents, and their political beliefs are expressions of that self-understanding. To challenge a political position is therefore experienced not merely as disagreement but as a threat to identity, which explains the intensity and persistence of ideological conflict. The notion of moderation complicates this picture, as it suggests the existence of a middle ground. Yet the analysis reveals that there is no single moderate worldview; rather, individuals who appear moderate often draw from both frameworks, applying them in different contexts. This coexistence of competing moral systems within a single mind demonstrates that the division is not absolute but dynamic, allowing for variation without dissolving the underlying structures. The role of cognition in sustaining these frameworks is central. Thought is not a transparent process in which facts are objectively assessed; it is mediated by neural patterns that filter and interpret information. Most of this activity occurs unconsciously, meaning that individuals are not aware of the frameworks guiding their reasoning. When new information is encountered, it is processed in relation to these existing structures. If it aligns with them, it is easily integrated; if it conflicts, it is resisted. This resistance does not require deliberate rejection. The mind can reshape, ignore, or reinterpret information automatically, preserving coherence within the framework. What appears as denial or irrationality is, in this sense, the normal operation of cognition maintaining its internal consistency. This mechanism explains why the presentation of facts alone rarely changes minds. Facts do not exist independently of interpretation; they acquire meaning only within a frame that makes them relevant and intelligible. When facts are introduced without regard to the audience's moral framework, they fail to connect, remaining external to the system that would allow them to influence belief.

Effective communication, therefore, depends not on the accumulation of evidence but on the alignment of that evidence with the underlying moral structures of the audience. Framing becomes the bridge between information and understanding, translating facts into forms that resonate with existing values. The implications extend beyond political strategy to the possibility of dialogue. If opposing sides operate within different moral frameworks, then communication requires more than assertion; it requires an effort to understand the structure of the other's reasoning. This does not imply agreement but recognition, acknowledging that each perspective is coherent within its own

system. Such recognition can reduce the tendency to dismiss or caricature opposing views, opening space for engagement that is not immediately adversarial. The challenge lies in addressing not only what people think but how they think, engaging with the cognitive foundations that sustain their beliefs. In this light, the persistence of political division is not surprising. It reflects the stability of the neural and conceptual systems that shape human thought. These systems are reinforced through repetition, social interaction, and cultural narratives, becoming deeply ingrained over time. Changing them requires more than argument; it involves the gradual reshaping of the patterns through which individuals interpret the world.

This process is slow and uncertain, as it must contend with the very mechanisms that resist change. Yet it also reveals a possibility: that by understanding these mechanisms, it may be possible to design forms of communication and interaction that work with them rather than against them. The study of moral politics thus transforms the understanding of conflict. It shifts the focus from surface disagreements to the deeper structures that generate them, revealing that the division between perspectives is rooted in the organization of thought itself. In doing so, it offers not a solution but a framework for understanding, where the path toward dialogue begins with recognizing that the same world can be experienced through fundamentally different moral lenses.

*Lakoff, G. (2016) Moral Politics: How Liberals and Conservatives Think. Chicago: University of Chicago Press.*

### ***The Invisible Mind of Politics: How Thought Shapes Ideology***

In George Lakoff's *Moral Politics: How Liberals and Conservatives Think*, political division is traced not to surface disagreements but to the underlying architecture of the mind itself, where conceptual systems, largely unconscious, determine how reality is perceived and evaluated. Politics becomes intelligible only when understood as a manifestation of cognitive structures—patterns of reasoning that operate beneath awareness yet govern how individuals interpret events, assign value, and construct arguments. The conflict between ideological camps is therefore not simply a clash of opinions but a confrontation between different modes of conceptualizing the world. At the center of this account lies the recognition that what is commonly called common sense is neither simple nor universal. It is a structured system of assumptions, categories, and metaphors that feels natural precisely because it is deeply embedded and rarely examined. Cognitive science reveals that most of this system operates unconsciously, shaping thought and language in ways that remain inaccessible to introspection. The speed and automaticity of cognition ensure that individuals experience their reasoning as immediate and self-evident, unaware of the frameworks that guide it.

In political contexts, this unconscious structure becomes decisive, as it filters information and determines which interpretations appear plausible or compelling. Conceptual metaphors provide the key to understanding this process. These are not decorative elements of language but fundamental mechanisms of thought, allowing abstract domains to be understood through more concrete experiences. Moral reasoning, for instance, is often structured through the metaphor of accounting, where actions are evaluated in terms of debts, credits, and balances. Such metaphors organize not only language but judgment, providing the logic through which policies are assessed. When political arguments resonate, it is because they align with these underlying structures, activating familiar patterns that make certain conclusions seem inevitable. The same situation can be framed through different metaphors, producing divergent interpretations that correspond to distinct moral perspectives. Categories further reinforce this structure by organizing concepts into

networks that extend beyond simple definitions. Rather than being fixed sets of properties, categories are arranged around prototypes—central models that represent typical or ideal cases. From these centers, variations radiate outward, creating a flexible system that accommodates diversity while maintaining coherence. Political identities such as “liberal” and “conservative” are not uniform labels but complex categories structured around such prototypes. These prototypes serve multiple functions, from defining ideal standards to providing negative exemplars that shape opposition. Through this system, individuals interpret political actors and policies in ways that reinforce their existing frameworks, integrating new information into established patterns. The most powerful of these patterns is the metaphor that links the nation to the family. This mapping provides a comprehensive framework through which political life is understood, translating abstract questions of governance into familiar moral relationships.

Within this framework, divergent models of the family generate distinct political ideologies. One model emphasizes authority, discipline, and self-reliance, projecting a vision of society in which order and responsibility are paramount. The other emphasizes care, empathy, and mutual support, envisioning a community grounded in cooperation and shared well-being. These models are not merely symbolic; they generate consistent positions across a wide range of issues, from economic policy to social welfare, by providing a coherent moral logic that guides judgment. The persistence of political division can thus be understood as the stability of these cognitive systems. Because they operate largely outside conscious awareness, they are resistant to change and difficult to challenge directly. Attempts to persuade through facts alone often fail because they do not engage the underlying frameworks that give those facts meaning. When information conflicts with a person’s conceptual system, it is reinterpreted or dismissed, preserving the coherence of the existing worldview. Effective communication, therefore, requires more than presenting evidence; it requires framing that connects with the moral and conceptual structures of the audience. The implications of this analysis extend to the practice of politics itself. Success in political discourse depends on the ability to activate and reinforce the cognitive frameworks that resonate with a given audience. This involves linking policy positions to moral narratives that align with deeply held values, ensuring that arguments are not only understood but felt as intuitively right. The relative effectiveness of different political movements can often be traced to their mastery of this process, as they craft language and imagery that integrate morality, identity, and policy into a unified message. Understanding the cognitive foundations of political thought also opens the possibility of dialogue across ideological divides.

By recognizing that opposing views are grounded in coherent systems rather than isolated errors, it becomes possible to engage with them more constructively. This does not eliminate disagreement, but it reframes it as a difference in conceptual organization rather than a failure of reasoning. Such recognition can reduce the tendency to dismiss or caricature opposing perspectives, creating space for communication that acknowledges the legitimacy of different modes of thought. In revealing the cognitive structure of politics, this perspective transforms the understanding of ideological conflict. It shows that political reasoning is inseparable from the mechanisms of thought itself, where metaphors, categories, and unconscious processes shape the interpretation of reality. The division between perspectives is thus rooted in the mind, sustained by the patterns through which individuals make sense of the world. To understand politics is therefore to understand cognition, for it is within the structures of the mind that the deepest foundations of political life are formed.

*Lakoff, G. (2016) Moral Politics: How Liberals and Conservatives Think. Chicago: University of Chicago Press.*

***The Moral Architecture of Thought: How Metaphor Becomes Humanity***

In George Lakoff's *Moral Politics: How Liberals and Conservatives Think* and George Lakoff and Mark Johnson's *Metaphors We Live By*, morality is revealed not as an abstract system of universal principles but as a structure emerging from the deepest layers of human experience, where bodily life, emotion, and social interaction give rise to the metaphors through which we think. What appears as ethical reasoning is in fact the elaboration of patterns rooted in lived reality, where health, strength, nurturance, and stability become the invisible foundation upon which entire moral worlds are constructed. Moral understanding begins not in philosophy but in experience. Before there are doctrines, there is the simple recognition that well-being matters: that being healthy is preferable to being ill, that strength enables action, that care sustains life, and that wholeness allows continuity. These basic conditions of flourishing are not merely biological facts; they become conceptual anchors from which abstract moral systems grow. Through metaphor, these experiences are projected into domains far removed from their origin, allowing humans to reason about justice, responsibility, and virtue in terms that are ultimately grounded in the body. Thus morality becomes wealth, where actions are evaluated as gains or losses; it becomes strength, where discipline and resistance define goodness; it becomes health, where corruption is seen as disease; and it becomes wholeness, where social breakdown appears as fragmentation or decay. These metaphors do not decorate moral language—they constitute it. Without them, concepts such as obligation, justice, or virtue would remain empty, lacking the structure necessary for reasoning.

The metaphorical system provides coherence, linking disparate moral ideas into unified frameworks that guide judgment and behavior. Yet this same system contains within it the possibility of distortion. Because metaphors highlight certain aspects of experience while obscuring others, moral reasoning can drift away from its experiential grounding. When the metaphor of strength dominates, morality becomes a matter of discipline and authority, often at the expense of care and empathy. When accounting metaphors prevail, relationships are reduced to transactions, and moral worth is measured in balances and debts. In such cases, the original purpose of morality—to enhance human well-being—becomes secondary to the internal logic of the metaphor itself. This divergence is most visible in contrasting moral frameworks. One framework places empathy at its center, treating the capacity to understand and share in the experience of others as the highest moral imperative. Here, protection, cooperation, and mutual care are not optional virtues but the conditions of flourishing. Moral reasoning remains closely tied to its experiential base, continually returning to the question of how actions affect the well-being of individuals and communities. The alternative framework elevates authority, discipline, and order above empathy. In this system, moral worth is determined by adherence to rules, the exercise of self-control, and the maintenance of hierarchical structures. While these values originate in the same experiential domain of well-being, they become detached from it, functioning as abstract principles that justify judgment and exclusion. The emphasis shifts from alleviating suffering to enforcing standards, from nurturing life to regulating behavior. This transformation reveals a fundamental tension within moral systems: the tendency for abstract structures to eclipse the experiences that gave rise to them.

The consequences of this shift are profound. When moral reasoning loses its connection to lived experience, it becomes capable of justifying actions that undermine the very well-being it was meant to protect. Judgment replaces understanding, punishment replaces care, and the distinction between self and other hardens into a boundary that excludes empathy. What begins as a system for organizing human flourishing can become a mechanism for denying it. Yet the metaphorical



nature of morality also contains the possibility of renewal. Because metaphors are rooted in experience, they can be reoriented by returning to that experience, reestablishing the connection between abstract reasoning and the conditions of life. This requires recognizing that moral concepts are not fixed truths but dynamic constructions, shaped by the interplay between cognition and the world. It involves questioning the metaphors that structure thought, examining what they reveal and what they conceal, and choosing those that align more closely with the realities of human existence. The broader implication is that morality is inseparable from the way humans think. The same mechanisms that allow us to understand time as a resource or argument as conflict also shape how we conceive of right and wrong.

These conceptual systems operate largely outside awareness, guiding perception and action with a force that feels natural and inevitable. To understand morality, therefore, is to uncover these systems, to make visible the structures that organize thought and give it direction. In doing so, morality is no longer seen as a set of external rules imposed upon human life but as an expression of that life itself, emerging from the body, shaped by experience, and sustained through the metaphors that connect the tangible to the abstract. What appears as ethical order is thus revealed as cognitive architecture, a reflection of the ways in which humans inhabit the world and make sense of it.

*Lakoff, G. (2016) Moral Politics: How Liberals and Conservatives Think. Chicago: University of Chicago Press.*

*Lakoff, G. and Johnson, M. (2003) Metaphors We Live By. Chicago: University of Chicago Press.*

### ***The Fabric of Truth: How Understanding Shapes Reality***

In George Lakoff and Mark Johnson's *Metaphors We Live By*, truth is no longer a distant, fixed property of the world waiting to be discovered, but a process emerging from the interaction between human cognition and experience, where meaning, perception, and purpose converge to produce what we call reality. What appears as truth is inseparable from the structures through which we understand, and those structures are not neutral—they are shaped by the body, culture, and the metaphorical systems that organize thought. The traditional philosophical pursuit of absolute truth rests on the assumption that language mirrors a pre-given world, that statements correspond directly to objective facts independent of human interpretation. This vision promises certainty, stability, and universality. Yet it overlooks a crucial condition: there is no access to the world unmediated by understanding. Every act of knowing requires a framework, and every framework is constructed through processes that are embodied, selective, and often unconscious. Truth, therefore, cannot exist outside the systems that make it intelligible. At the most basic level, truth operates as a condition for action. To move through the world, one must rely on countless assumptions that function as truths: where objects are located, what is safe or dangerous, how others will respond.

These truths are rarely questioned because they are embedded in habitual interaction. They are not abstract propositions but lived orientations, guiding behavior through an implicit alignment between expectation and experience. In this sense, truth is less a property of statements than a condition of successful engagement with reality. The construction of truth begins with projection. Humans impose structure on the world in order to make sense of it, assigning boundaries, orientations, and relations that are not inherently present. A space becomes a container because we treat it as one; an object gains a front or back because we approach it from a particular perspective. These projections are not arbitrary—they arise from bodily experience and practical

needs—but they are nonetheless imposed, shaping how situations are perceived and described. Different cultures may project different structures onto the same environment, demonstrating that what is taken as given is often the result of interpretive activity. Categorization further refines this process. To identify something as a chair, a tool, or a person is to place it within a system that highlights certain features while obscuring others. Categories are not exhaustive descriptions of reality; they are selective frameworks oriented toward human purposes. What counts as a chair depends on context, function, and expectation, and therefore what can be said truthfully about it varies accordingly. Truth is thus inseparable from the categories that define its terms, and those categories are grounded in experience rather than in objective divisions of the world. When statements are evaluated, they are not compared directly to reality but to an interpreted situation shaped by these projections and categories.

Understanding a statement requires situating it within a broader experiential pattern, where actions, intentions, and contexts form a coherent whole. A statement is considered true when it fits sufficiently within this framework, when the structures it invokes align with those used to interpret the situation. This alignment is never perfect, but it is adequate for the purposes at hand, allowing communication and action to proceed. Metaphor extends this process into abstract domains. When we speak of inflation rising, arguments being defended, or time being spent, we rely on mappings that transfer structure from concrete experience to intangible concepts. These mappings do not distort reality; they constitute the only way such realities can be understood. Truth within these domains is therefore always mediated by metaphor, shaped by the systems that render the abstract intelligible. To reject metaphor as merely decorative is to ignore the very mechanism through which understanding becomes possible. New metaphors reveal the dynamic nature of truth. When an unfamiliar mapping resonates with experience, it can reconfigure understanding, highlighting aspects previously unnoticed and challenging established frameworks. Such metaphors do not simply describe the world differently; they create new ways of engaging with it, expanding the possibilities of what can be considered true. Truth, in this sense, is not fixed but evolving, responsive to changes in conceptual systems and the experiences that inform them. This perspective transforms the philosophical landscape. Correspondence, coherence, and pragmatism are no longer competing theories but interconnected aspects of a single process. Truth involves a fit between statement and situation, but that fit is mediated by understanding; it requires coherence within a conceptual system, but that system is grounded in experience; it proves itself through successful interaction, but that interaction is shaped by the structures of cognition. Reality constrains these processes, but it does not determine them independently of human interpretation. The implications are profound.

If truth depends on conceptual systems, then those who shape these systems influence what is accepted as real. Dominant metaphors, reinforced through language, institutions, and power structures, define the boundaries of understanding. What is taken as common sense is often the result of this influence, appearing natural precisely because its origins are obscured. To question truth is therefore to question the frameworks that sustain it, to examine the metaphors that organize perception and the purposes they serve. In this light, truth becomes an achievement rather than a given, a continuous alignment between understanding and experience. It is neither purely subjective nor entirely objective but interactional, emerging from the relationship between human beings and the world they inhabit. To seek truth is not to escape this relationship but to become more aware of it, recognizing that what we know is always shaped by how we know.

*Lakoff, G. and Johnson, M. (2003) Metaphors We Live By. Chicago: University of Chicago Press.*

***Beyond Objectivity and Subjectivity: The Experiential Ground of Truth***

In George Lakoff and Mark Johnson's *Metaphors We Live By*, the long-standing opposition between objectivism and subjectivism is revealed not as a genuine philosophical necessity but as a cultural construction—one that obscures the actual conditions under which humans understand, reason, and claim truth. What appears as a choice between absolute certainty and arbitrary imagination dissolves once we recognize that both positions rely on incomplete accounts of how the mind engages with the world. The myth of objectivism rests on the belief that reality is composed of entities with fixed, inherent properties, entirely independent of human perception. Knowledge, in this view, is the accurate reflection of these properties, achieved through disciplined observation and rational analysis. Language is assumed to function as a transparent medium, capable of describing the world precisely, while truth is conceived as a correspondence between statements and objective facts. Within this framework, metaphor is treated as a deviation—an imprecise and potentially misleading use of language that must be eliminated to achieve clarity. Yet this vision of objectivity is sustained by a paradox: it depends on conceptual structures that it refuses to acknowledge.

The categories through which objects are identified, the properties deemed relevant, and the relations that organize them are not given by the world itself but arise from human interaction with it. These structures are shaped by the body, by perception, and by cultural practice. The supposed neutrality of objectivity conceals its dependence on these underlying systems, presenting as universal what is in fact situated. The myth of subjectivism, by contrast, reacts against this rigidity by locating truth entirely within the individual. It celebrates intuition, emotion, and imagination as primary sources of meaning, asserting that what is most significant cannot be captured by objective description. Here, metaphor is embraced rather than rejected, seen as the medium through which personal experience finds expression. Truth becomes a matter of authenticity, of fidelity to one's own perceptions and feelings, unconstrained by external standards. However, this position overlooks the constraints that make understanding possible in the first place. Individual experience is never isolated; it is shaped by shared patterns of perception, language, and culture. Even the most personal insights rely on concepts and metaphors that are collectively developed. Subjectivism thus risks dissolving meaning into arbitrariness, ignoring the structures that give coherence to thought and communication. The opposition between these two myths is therefore misleading. Each defines itself against the other, reinforcing a dichotomy that leaves no room for the actual complexity of human cognition. Objectivism claims authority over reason and reality, relegating imagination to the margins, while subjectivism claims authority over meaning and experience, rejecting the constraints of rationality. Together, they divide what is in practice inseparable: the interplay between structure and creativity, between constraint and freedom, that characterizes human understanding.

The experientialist perspective offers a way beyond this division. It begins with the recognition that understanding arises from embodied interaction with the world. Human beings do not passively receive information nor arbitrarily construct it; they engage with their environment through perception, action, and social exchange. From this engagement emerge the conceptual systems that organize experience, systems that are both constrained by reality and shaped by human purposes. Metaphor plays a central role in this process. It is not an ornament of language but a fundamental mechanism of thought, enabling abstract domains to be understood in terms of concrete experience. Through metaphor, imagination and reason become intertwined. The ability to see one thing in terms of another is not opposed to rationality; it is a condition for it. Inferences, categorizations, and judgments are guided by metaphorical structures that provide coherence and direction. Rationality, therefore, is not disembodied but imaginative, grounded in patterns that

emerge from the body and its interaction with the world. Truth, within this framework, is neither absolute nor arbitrary. It is relative to conceptual systems, but these systems are not freely chosen; they are shaped by shared experience and constrained by the environment. A statement is true insofar as it fits within a framework that enables successful interaction with the world and coherent integration with other understandings. This fit is always partial and revisable, reflecting the dynamic nature of human cognition. Objectivity, in this sense, becomes a matter of achieving sufficient alignment within a community of understanding, rather than accessing a view from nowhere.

What both objectivism and subjectivism fail to recognize is the interdependence of structure and experience. Objectivism ignores the role of the mind in shaping what is taken as real, while subjectivism ignores the role of the world in constraining what can be imagined. The experientialist account restores this balance, showing that meaning arises from the continuous negotiation between these dimensions. Understanding is neither imposed by the world nor invented by the individual; it is constructed through interaction. This perspective carries significant implications. It reveals that claims to absolute objectivity often conceal particular conceptual frameworks presented as universal, while appeals to pure subjectivity overlook the shared structures that make communication possible. It also highlights the importance of examining the metaphors that organize thought, since these metaphors determine what is seen, what is ignored, and what can be considered true. To understand truth, therefore, is to understand the systems that produce it, to recognize their origins, their limitations, and their capacity for change. In moving beyond the myths of objectivism and subjectivism, the experientialist view does not abandon truth but redefines it. Truth becomes a living process, grounded in human experience, shaped by metaphor, and open to revision. It is neither a fixed correspondence nor an arbitrary creation but a dynamic relation between mind and world, sustained through the practices of understanding that make human life possible.

*Lakoff, G. and Johnson, M. (2003) Metaphors We Live By. Chicago: University of Chicago Press.*

### ***The Collapse of Objectivism: How Metaphor Rewrites Reality***

In George Lakoff and Mark Johnson's *Metaphors We Live By*, the objectivist vision of the world—as a stable arrangement of discrete entities with inherent properties—is revealed to be less a discovery about reality and more a projection of a particular conceptual system that mistakes its own structure for the structure of the world. What appears as clarity and precision is in fact the result of a selective framework that excludes the very mechanisms through which understanding becomes possible. At the center of this critique stands metaphor, not as an ornament of language but as the primary instrument of thought. Objectivism treats metaphor as marginal, an imprecise deviation from literal meaning, something to be tolerated in poetry but excluded from serious accounts of truth and knowledge. Yet this dismissal collapses when confronted with the actual workings of language and cognition. Metaphor is not peripheral—it is pervasive. It structures how humans conceptualize time, emotion, causation, and even thought itself. To remove metaphor from meaning would be to strip away the very architecture that allows meaning to exist. The objectivist assumption that words correspond directly to inherent properties of objects depends on a deeper illusion: that objects themselves possess fixed boundaries and qualities independent of human interaction.

However, what counts as an object is already the result of projection. The world does not present itself as neatly divided into discrete entities; it is human perception and action that carve it into

usable forms. A forest clearing becomes a bounded space because it serves as one; a tool becomes distinct from its surroundings because it is grasped and used. Objects, therefore, are not simply found—they are constituted through interaction. The same applies to properties. Hardness, color, function, and significance are not intrinsic features existing in isolation but arise within contexts of use and perception. What something is depends on how it is engaged, and this engagement varies across situations and cultures. The idea that properties are inherent obscures this relational character, presenting as universal what is in fact contingent on human purposes. Categories, which objectivism treats as rigid sets defined by necessary and sufficient conditions, are likewise grounded in experience. Rather than fixed boundaries, they exhibit prototype structures, where certain instances are more central than others and where membership is graded rather than absolute. This flexibility allows categories to function in a world that is itself variable and context-dependent. Objectivist models, by imposing strict definitions, simplify this complexity but at the cost of distorting it. Metaphor exposes these limitations most clearly through its generative power. It does not merely reflect preexisting similarities; it creates them. When ideas are understood as food, it is not because an objective resemblance exists between thinking and digestion, but because human experience provides a framework that can be projected onto the abstract domain of thought.

This projection establishes correspondences—consumption, transformation, assimilation—that did not exist prior to the metaphor. The similarity is therefore not discovered but produced. Objectivism cannot account for this process because it assumes that meaning must be grounded in inherent properties. Faced with metaphor, it resorts to the notion of “dead metaphors,” claiming that once-vivid comparisons have become literal through habitual use. But this explanation fails to capture the ongoing systematicity of metaphorical language. Expressions such as “grasping an idea,” “chewing over a problem,” or “digesting information” are not isolated relics of past creativity; they form coherent networks that structure reasoning in consistent ways. The metaphor remains alive, guiding inference and understanding even when it is no longer noticed. The inability of objectivism to explain such systematicity reveals a deeper problem: its conception of meaning is too narrow to account for the richness of human cognition. By focusing on fixed correspondences between words and the world, it ignores the processes through which meaning is constructed, extended, and transformed. Metaphor, far from being an anomaly, demonstrates that meaning is dynamic, emerging from the interaction between conceptual systems and experience. When challenged, objectivism often retreats by redefining its scope, conceding that metaphor may play a role in everyday understanding while insisting that it remains irrelevant to the pursuit of absolute truth. This move preserves the ideal of objectivity by isolating it from the realities of cognition, effectively abandoning the attempt to explain how humans actually think. The result is a philosophical framework that is internally consistent but externally disconnected, unable to address the phenomena it claims to illuminate. Yet the critique of objectivism does not entail the rejection of all its contributions. The drive for consistency, clarity, and systematic reasoning has practical value. Formal models can organize experience, support inference, and facilitate communication within specific domains. Science, in particular, benefits from such structures, using them to stabilize inquiry and produce reliable results.

However, these models function as tools rather than as mirrors of reality. They highlight certain aspects of the world while obscuring others, and their usefulness depends on recognizing their limits. True understanding requires the ability to move between multiple frameworks, to shift metaphors and perspectives in order to capture different dimensions of experience. Objectivism, by insisting on a single, unified structure, restricts this flexibility, reducing the world to what fits within its categories. The experientialist alternative restores this flexibility by acknowledging that meaning, truth, and understanding are rooted in human interaction with the world. It accepts that

concepts are shaped by the body, by culture, and by the metaphors that arise from lived experience. This does not lead to arbitrariness, because these factors impose constraints, grounding thought in shared patterns of perception and action. At the same time, it allows for variation, recognizing that different contexts and purposes give rise to different ways of organizing reality.

Metaphor, within this framework, becomes the key to understanding not only language but thought itself. It reveals that cognition is not a passive reflection of the world but an active process of structuring it, where imagination and reason operate together. The collapse of objectivism, therefore, is not the loss of truth but the recognition that truth cannot be separated from the conditions of its construction. What emerges in its place is a more complex, more human account of understanding—one that accepts the necessity of metaphor, the relativity of concepts, and the ongoing negotiation between mind and world that defines what it means to know.

*Lakoff, G. and Johnson, M. (2003) Metaphors We Live By. Chicago: University of Chicago Press.*

### 3. THINKING WITHOUT WORDS

#### ***Between Matter and Memory: The Living Bridge of Consciousness***

In *Matter and Memory*, Henri Bergson undertakes a radical reconfiguration of one of philosophy's most persistent dilemmas—the relation between mind and body—by refusing the extremes that have long defined it. Instead of choosing between a world of inert matter producing perception or a world dissolved into perception itself, he proposes a third path: a reality composed of images, situated between things and representations, neither reducible to pure objectivity nor confined within subjective consciousness. This shift is not merely terminological; it transforms the very terrain on which philosophy operates, relocating the problem of knowledge from abstraction to lived experience. The notion of images destabilizes the rigid boundary between subject and object. Matter is no longer something entirely external and alien to perception, nor is it absorbed into the mind as mere appearance. It exists independently, yet remains intrinsically perceptual—available to consciousness without being created by it. This intermediate status allows Bergson to preserve the immediacy of experience while avoiding the metaphysical excesses of both realism and idealism. What is perceived is not a copy or construction but a selection from a field of images that already exist, awaiting organization through the needs of action.

Perception, in this framework, is fundamentally practical. It does not aim at knowledge for its own sake but serves the body's engagement with the world. The body becomes not a container of representations but an instrument of action, a center of indetermination that filters the surrounding field of images according to its possible movements. To perceive is to eliminate, to carve out from the overwhelming totality of reality those elements that matter for survival and response. In this sense, perception is not in the mind but in things themselves, a relation of partial inclusion rather than duplication. Memory enters as the dimension that complicates this immediate engagement. If perception is oriented toward the present and the demands of action, memory introduces the past as an active force within the present. It is not a diminished perception, a fading trace stored somewhere in the brain, but a fundamentally different mode of existence. Memory preserves the past in its entirety, independent of the mechanisms that actualize it. The brain does not store memories; it selects and translates them into action, enabling their insertion into the flow of present activity. This distinction allows Bergson to challenge dominant theories that reduce consciousness to brain processes. The correlation between brain states and mental activity does not imply identity or causation in the reductive sense. Instead, the brain functions as a relay, a point of insertion where the virtual past becomes actual in the present. Pathologies of memory, far from proving that

recollections are stored in neural tissue, reveal the dependence of their expression on bodily conditions without reducing their existence to those conditions. Memory, therefore, belongs to what Bergson calls the spiritual dimension—not as a mystical realm separate from matter, but as the persistence of the past beyond the immediacy of action. The interplay between perception and memory generates consciousness as a dynamic synthesis. Pure perception, an ideal limit in which the present is entirely detached from the past, never occurs in lived experience. Likewise, pure memory, detached from action, remains virtual.

Consciousness arises from their intersection, where the past continuously informs and reshapes the present. This interaction dissolves classical dualisms: the extended and the inextended, quantity and quality, necessity and freedom. What appeared as irreconcilable oppositions are revealed as artifacts of abstraction, products of a philosophical method that isolates what in reality is continuous. Bergson's critique extends to the conceptual tools that sustain these oppositions. Homogeneous space and measurable quantity, central to scientific representation, are shown to be abstractions that obscure the qualitative, temporal nature of experience. In their place, he introduces notions such as extensity and tension, which capture the gradations and continuity between matter and spirit. Reality is no longer divided into separate domains but understood as a spectrum of degrees, where differences are matters of intensity rather than kind. Within this continuum, freedom emerges not as an escape from causality but as its transformation. The integration of memory into action allows the organism to respond creatively, to select among possibilities rather than merely react. Freedom is thus rooted in the capacity to draw upon the past, to condense it into the present in ways that open new paths of behavior. It is neither absolute nor illusory but a function of the complexity of living systems, their ability to delay, interpret, and reconfigure the forces acting upon them.

What ultimately emerges from this analysis is a vision of reality in which matter and spirit are not opposing substances but interdependent aspects of a single process. Perception anchors consciousness in the world, while memory lifts it beyond the immediacy of the present, creating a depth that makes reflection and creativity possible. The mind is not separate from the body, nor is it reducible to it; it is the movement that connects them, the continuous negotiation between action and remembrance. In this sense, Bergson does not resolve dualism by choosing one side over the other but by dissolving the conditions that made the opposition appear necessary. The world is no longer split between two incompatible realms but understood as a living continuity, where the material and the spiritual coexist and define one another. Memory becomes the key to this unity, revealing that what we are is neither purely present nor entirely determined, but always a synthesis of what has been and what can be.

*Bergson, H. (1911) Matter and Memory. London: George Allen & Unwin.*

### ***Seeing as Thinking: The Intelligence of Perception***

In *Visual Thinking*, Rudolf Arnheim dismantles one of the most persistent illusions of Western thought—the belief that perception and reasoning belong to separate realms, with the former serving as a crude supplier of data and the latter as the true seat of intelligence. Against this inherited hierarchy, Arnheim advances a more radical claim: perception is already a form of thinking, and without it, reasoning itself would collapse into abstraction without substance. The mind does not first receive and then process; it organizes, selects, and interprets from the very moment of contact with the world. What appears as raw sensation is already structured, already meaningful, already conceptual. This insight overturns the long-standing metaphor of cognition as

a pipeline, where sensory input is passed along to higher faculties for refinement. Instead, perception and thought form a single, continuous activity, inseparable in function and purpose. The necessity of this unity becomes evident when one considers the problem of generality.

The world presents itself as an infinite stream of particulars, each unique and fleeting. If the mind merely registered these impressions without extracting patterns, no knowledge could arise—only accumulation without understanding. Perception solves this problem not by passively recording but by actively grouping, distinguishing, and highlighting. It identifies similarities, isolates structures, and generates what we call concepts. In this sense, perception does not precede thought; it is already engaged in it. The eye, far from being a mechanical receptor, is an organ of intelligence, capable of grasping relations, tensions, balances, and forms that no purely abstract reasoning could reconstruct afterward. Yet despite this fundamental role, a powerful tradition has sought to demote perception. From medieval scholastics to Enlightenment rationalists, sensory experience was treated as confused and unreliable, a preliminary stage to be corrected by reason. Even when thinkers like Baumgarten elevated perception into the domain of aesthetics, they preserved its subordinate status, defining it by its supposed lack of clarity. This philosophical bias extended into cultural institutions, where the division between the Liberal Arts and the Mechanical Arts relegated visual creation to the realm of craft rather than intellect. Painting and sculpture became activities of the hand rather than the mind, reinforcing the notion that true knowledge resided in language, logic, and number. The consequences of this division persist in modern education. Children begin their intellectual lives immersed in sensory exploration—touching, seeing, manipulating—but gradually this mode of engagement is displaced by symbolic systems. Words and numbers come to dominate, while visual and tactile understanding is treated as secondary, even expendable. The arts survive as supplements, valued for emotional release rather than cognitive development. In this shift, something essential is lost: the capacity to think through perception, to grasp complexity directly rather than translating it into abstract codes. The result is a form of reasoning detached from its sensory roots, prone to rigidity and impoverishment. Arnheim's critique reaches deeper, tracing this division back to its philosophical origins. Ancient traditions already expressed ambivalence toward the senses.

In Hebrew thought, the suspicion of images is dramatized in the rejection of idols, while Greek philosophy introduced a metaphysical split between the unchanging order of the heavens and the deceptive flux of the earthly world. Parmenides denied change altogether, dismissing sensory evidence as illusion, while Democritus reduced sensory qualities to subjective appearances masking an underlying reality of atoms and void. These positions established a pattern: the more reliable truth became associated with abstraction, the less trust was placed in perception. Yet this distrust was never absolute. Plato, often cited as a critic of the senses, presents a more complex picture. While he elevates reason as the path to immutable forms, he also describes knowledge as a kind of vision—a turning of the soul toward what is real. His allegory of the cave culminates not in discursive argument but in an act of seeing, suggesting that truth, at its highest level, retains a perceptual dimension. Even the doctrine of recollection implies that learning is not the construction of knowledge from scratch but the recovery of something already present, waiting to be recognized. Aristotle moves further toward integration, rejecting the separation of forms from particulars and insisting that universals are present within the objects we perceive. For him, perception is not blind to generality; it apprehends it directly. The act of seeing a particular object already involves recognizing its kind, its structure, its place within a broader order. Thought, therefore, cannot proceed without images, because images are the medium through which universals become accessible. The famous claim that the soul never thinks without an image is not a limitation but a recognition of how cognition operates: abstraction depends on perception, not



the other way around. From this perspective, the opposition between perception and reasoning appears as a historical artifact rather than a necessity. It arises from a desire for certainty, for knowledge untainted by the variability of experience. But in seeking this purity, philosophy has often severed itself from the very processes that make understanding possible. Arnheim's project is to restore that connection, to show that clarity does not require the elimination of perception but its refinement.

Visual thinking, in this sense, is not a specialized skill confined to artists but a fundamental mode of cognition available to all. It allows us to grasp patterns, relationships, and meanings in ways that complement and enrich verbal and numerical reasoning. The implications of this view extend beyond psychology or aesthetics. If perception is inherently intelligent, then the cultivation of the senses becomes a central task of education and culture. To see well is to think well; to neglect perception is to impoverish thought. The division between the arts and the sciences, between intuition and logic, dissolves when both are recognized as expressions of the same cognitive activity. What remains is not a hierarchy but a spectrum of approaches, each contributing to a fuller understanding of reality. In reclaiming perception as a form of reasoning, Arnheim does more than correct a theoretical error. He redefines the nature of intelligence itself—not as a detached manipulation of symbols, but as an embodied engagement with the world, where seeing, thinking, and understanding are different names for the same continuous act.

*Arnheim, R. (1969) Visual Thinking. Berkeley: University of California Press.*

### ***Words as Shadows, Images as Thought***

In *Visual Thinking*, Rudolf Arnheim confronts one of the most persistent assumptions in the study of mind: that thinking is fundamentally verbal. Against this deeply rooted belief, he advances a more unsettling proposition—that words, far from being the substance of thought, are secondary instruments that depend on a more primary medium: perceptual form. Thought must take shape, and that shape cannot arise from nothing. Just as action requires matter or energy, cognition requires a medium in which its structures can exist. The question, then, is not whether thinking occurs, but where and how its forms are realized. One tempting answer places thinking entirely within the brain as a physiological process, perhaps even outside awareness. Yet to label such processes “unconscious” merely names an absence, not an explanation. It tells us where thought is not visible, but not what it is. The deeper problem remains: what is the form of thinking itself? If thought is to be understood, it must be grasped not only by its outcomes but by its internal structure—its shapes, relations, and transformations. Arnheim argues that these structures are fundamentally perceptual. Concepts are not abstract, disembodied tokens but organized images, configurations that preserve the essential features of what they represent. Even when dealing with abstraction, the mind relies on structural correspondences that mirror the relations found in experience. Thinking, in this sense, is not the manipulation of symbols but the transformation of forms.

From this perspective, the role of language becomes ambiguous. The widespread conviction that language is indispensable to thought—voiced famously by Edward Sapir—rests on the assumption that words themselves carry the structures required for reasoning. But Arnheim challenges this assumption by asking a simple question: do words, in their sensory form, possess the richness necessary to sustain thought? The answer, he suggests, is largely negative. Words are perceptual shapes—sounds, visual marks, or motor patterns—but their structure is comparatively impoverished. Unlike visual forms, which can represent complex spatial and relational

configurations, linguistic forms are linear and limited. The difference between a noun and a verb, for example, is not encoded in the sound of the word itself. The sequence of words in a sentence unfolds in a single dimension, lacking the multidimensional richness required to model complex relations directly. As a result, purely verbal reasoning is constrained to simple operations—recognizing sequences, similarities, or contrasts—without capturing the full structure of the situations it describes. This limitation becomes clearer when language is compared to other perceptual media. Music, for instance, operates with intricate patterns of rhythm, pitch, and harmony, demanding a high degree of structural organization. Visual perception, even more so, provides a field in which relationships of size, distance, tension, and balance can be grasped simultaneously. These media offer what language lacks: a direct representation of structure. Words, by contrast, function more like pointers than containers of meaning. They direct attention to perceptual concepts rather than embodying those concepts themselves. Their power lies not in their intrinsic form but in their ability to evoke richer representations beyond them. This view also clarifies why thought can occur without language. Animals, particularly primates, demonstrate forms of reasoning that involve abstraction, problem-solving, and adaptation to novel situations. A chimpanzee manipulating tools to achieve a goal is not merely reacting but reorganizing its perception of the environment. Such behavior reveals that thinking does not require words; it requires the ability to perceive relations and transform them. Yet animal cognition appears limited to the immediate and the concrete.

As Ludwig Wittgenstein observed, we can attribute to a dog the fear of being beaten, but not the anticipation of being beaten tomorrow. This distinction points to a uniquely human capacity: the ability to think beyond the present, to engage with absent, hypothetical, or future situations. Language facilitates this capacity, but it does not create it. The independence of human thought from immediate perception is not a linguistic achievement alone but a cognitive one, rooted in the ability to manipulate perceptual structures internally. Words assist by stabilizing these structures, allowing them to be held, communicated, and revisited. They provide fixed labels that anchor otherwise fluid distinctions, enabling consistency and clarity. Without language, perception might remain too flexible, too dependent on context; with language, concepts gain boundaries and persistence. This stabilizing function is perhaps the true power of words. They do not generate thought but preserve and organize it. By naming categories—“cat,” “lion,” “justice,” “force”—language imposes distinctions that might otherwise blur. It allows us to compare, contrast, and relate concepts across contexts, extending the reach of perception into domains that are not immediately present. When we say “Alexander was greater than Napoleon,” we translate an abstract evaluation into a spatial relation, making it accessible to perceptual understanding. In this way, language bridges the gap between concrete experience and abstract reasoning, not by replacing perception but by extending its patterns. The history of language itself bears witness to this dependence. Many abstract terms originate in metaphors grounded in sensory experience. “Depth,” for example, applies both to physical space and to thought, revealing how the structure of perception is projected onto abstract domains. Such metaphors are not decorative; they are constitutive. They show that human thought does not transcend perception but reorganizes it.

The patterns available in sensory experience set the limits within which abstraction can operate. To think beyond perception is not to escape it but to transform its structures into new configurations. Arnheim’s conclusion is therefore both modest and radical. Language is not the essence of thought but its ally. It contributes little in terms of independent structure but plays an indispensable role in stabilizing, labeling, and communicating the forms generated by perception. Thought, at its core, remains a perceptual activity—a dynamic interplay of images, relations, and

transformations. Words, like shadows, accompany this activity, giving it clarity and persistence, but never replacing the richer medium from which it arises.

*Arnheim, R. (1969) Visual Thinking. Berkeley: University of California Press.*

### ***The Illusion of Verbal Sovereignty: Why Language Follows Thought***

In *Visual Thinking*, Rudolf Arnheim advances a position that cuts against one of the most deeply entrenched convictions of modern thought: that language governs the mind. Instead, he exposes language as an auxiliary system—powerful, indispensable in certain respects, yet fundamentally dependent on perceptual processes that precede and exceed it. The claim is not that language is trivial, but that it has been granted an authority it does not possess. Thought does not originate in words; words emerge as stabilizing devices within a far more fluid and image-driven cognitive field. This argument places Arnheim in tension with a long intellectual lineage that treats language as the architect of reality. Wilhelm von Humboldt famously proposed that each language encloses its speakers within a “magic circle,” shaping perception so completely that escape is possible only through adopting another linguistic system. This vision, echoed later in linguistic determinism, presents language not merely as a tool but as a cage—an invisible structure that defines what can be thought. Yet Arnheim identifies a crucial omission in such claims: they rarely account for how language itself arises. If language determines perception, what determines language? To attribute formative power to language without explaining its origin is to invert the order of causation. Language is not the creator of perceptual reality but a product of it, crystallizing distinctions that have already emerged within experience. The evidence for this reversal lies in the flexibility of human cognition across linguistic boundaries.

Claims that specific grammatical features dictate modes of thought often collapse under scrutiny. Anthropological examples—such as the absence of singular-plural distinctions in certain languages or the lack of grammatical gender in others—fail to produce the cognitive differences that linguistic determinism predicts. Societies with no grammatical gender still maintain complex social distinctions between genders, while speakers of gendered languages do not perceive objects as inherently masculine or feminine. A table does not acquire masculinity because it is “*der Tisch*,” nor does its identity dissolve when described in a language without gender. These observations reveal a deeper principle: perception adapts dynamically to the world, not rigidly to linguistic categories. Language may highlight certain distinctions, but it does not imprison the mind within them. This adaptability underscores the auxiliary role of language. It functions as a system of tags, labels that anchor and preserve perceptual distinctions, but it does not generate those distinctions. Its influence is therefore conservative rather than creative. By fixing names to concepts, language encourages stability, sometimes at the cost of flexibility. A word like “triangle” evokes a stable, canonical form, even though the perceptual category it represents encompasses infinite variations. In this way, language tends to solidify what perception leaves open, promoting stereotyped thinking. This tendency can be useful, providing clarity and consistency, but it can also distort understanding when rigid labels override contextual nuance. The danger lies not in language itself but in the way its fixed forms interact with the fluidity of perception. Benjamin Lee Whorf offers examples that illustrate this tension. His observation that the word “empty” can mislead—suggesting both the absence of contents and the absence of danger—demonstrates how linguistic labels can reinforce inappropriate interpretations. A container marked “empty” may still contain flammable vapors, yet the verbal association with harmlessness persists. Arnheim’s analysis, however, shifts the emphasis: the misunderstanding originates not in the word but in the perceptual

image it evokes. The word amplifies a particular interpretation, but the interpretation itself arises from how the situation is perceived.

Language does not create the error; it stabilizes it. This distinction is crucial, for it preserves the primacy of perception while acknowledging the reinforcing power of words. The limits of language become even clearer when we consider the vast range of perceptual concepts that exist without verbal labels. James Deese cataloged numerous categories—such as “things that change shape” or “all surfaces of a room”—for which English lacks common terms. The absence of words does not imply the absence of concepts. Perception readily organizes such categories based on function, structure, or interaction. Animals, too, demonstrate this capacity. A dog trained to respond to the word “chair” may generalize the concept to any object it can jump onto, revealing a functional understanding that transcends human linguistic categories. Conversely, humans may struggle to group perceptually dissimilar items under a single label, even when they belong to a broader conceptual class. These asymmetries show that language does not define the boundaries of thought; it reflects and sometimes distorts them. The apparent stability of language further obscures its dependence on cognition. Words seem fixed, their meanings stable across contexts, but this stability is largely illusory. As Susanne Langer suggests, language appears to consist of fixed elements, yet in practice, meanings shift with use, context, and conceptual development. Scientists and philosophers constantly grapple with this instability, debating whether to stretch existing terms or invent new ones to capture emerging ideas. Edward Sapir recognized this tension, noting how new concepts strain against inherited linguistic forms. The struggle is not merely linguistic but cognitive: the mind is reorganizing its understanding, and language must follow. Adjusting terminology is therefore a secondary task, a technical accommodation to deeper changes in thought. The true transformation occurs in the restructuring of perceptual and conceptual frameworks. From this perspective, language emerges as a tool of remarkable utility but limited scope. Its primary function is to stabilize, preserve, and communicate the results of thinking that occurs in richer, more flexible media. It anchors concepts, making them accessible across time and between individuals, but it does not generate the structures those concepts embody. As Eric Lenneberg succinctly put it, words “tag the processes by which the species deals cognitively with its environment.”

These processes are dynamic, continuously adapting to new situations and reorganizing existing patterns. Words, by contrast, remain relatively fixed, creating the illusion of permanence in a system that is fundamentally in flux. Arnheim’s conclusion is therefore both corrective and liberating. Language is not the sovereign of thought but its servant. It follows where perception leads, consolidating and transmitting insights that originate elsewhere. To overestimate its role is to misunderstand the nature of cognition itself, mistaking the label for the process it marks. True thinking unfolds in the interplay of perceptual forms—images, patterns, and relations that capture the structure of experience. Words accompany this process, giving it clarity and continuity, but they never replace the richer medium from which it arises.

*Arnheim, R. (1969) Visual Thinking. Berkeley: University of California Press.*

### ***The Tyranny of Sequence: How Language Flattens Thought***

In *Visual Thinking*, Rudolf Arnheim identifies a structural constraint that quietly governs much of human reasoning: linearity. While the mind operates within a multidimensional field—where relations unfold simultaneously across space and time—intellectual thinking imposes a different order. It cuts through this field, translating simultaneity into sequence, transforming a web of

relations into a chain of steps. This transformation is not merely a stylistic feature of language; it is a cognitive reconfiguration that reshapes how reality is grasped. What is originally perceived as coexistence becomes processed as succession. The cost of this translation is subtle but profound: the richness of spatial interaction is reduced to the narrow corridor of temporal progression. Language embodies this constraint. Words follow one another in sequence, each representing a concept that must be processed in turn. This sequential structure is not an inherent property of language as a medium—after all, words can overlap in music, or be arranged spatially in visual poetry—but it becomes unavoidable in intellectual use.

When language serves thought, it aligns itself with the linear demands of conceptual combination. A phrase like “cherries on trees” does not present a visual scene; it enumerates elements—cherries, on, trees—leaving the mind to reconstruct their spatial relation. The simultaneity of perception is replaced by the temporality of listing. In this sense, language does not depict; it directs reconstruction. The listener or reader must rebuild the image step by step, guided by the order in which words appear. This reconstruction reveals the deeper effect of linearity: it transforms relations into entities. As Susanne Langer observed, language turns interactions into objects. The sentence “A killed B” does not present the simultaneous interplay of forces, intentions, and actions that constitute the event. Instead, it inserts an abstract intermediary—“killing”—and arranges the components in sequence: A, then killing, then B. The dynamic unity of the event is replaced by a conceptual structure that unfolds in time. What was once a field of interaction becomes a series of steps, each isolated from the others. This transformation is not neutral; it shapes how events are understood, emphasizing causality and order at the expense of simultaneity and complexity. The limitations of this process become evident when language attempts to convey richly structured scenes. Gotthold Ephraim Lessing, in *Laocoön*, famously distinguished between the capacities of painting and poetry: the former excels at presenting coexistence in space, the latter at unfolding actions in time. Attempts to describe a visual scene through enumeration often fail because they cannot capture the unity of the whole. A detailed list of gestures, expressions, and objects may accumulate information, yet it rarely produces the immediacy of direct perception. The image remains fragmented, reconstructed piecemeal rather than grasped at once. Writers instinctively compensate for this limitation by embedding description within action. Instead of listing elements, they guide perception through sequences that impose coherence.

In *The Adulterous Woman*, Albert Camus animates a static environment by tracing the movement of a fly. The scene emerges not as a collection of objects but as a trajectory of attention: the fly’s circling, its landing, the stillness of a hand, the confinement of space. Each detail appears in a deliberate order, shaping the reader’s perception as it unfolds. The linear sequence does not merely describe the scene; it interprets it, directing focus and establishing relationships that might otherwise remain diffuse. In this way, language compensates for its inability to present simultaneity by imposing a path through it. Literary construction thus becomes an art of accretion. Unlike a painting, which presents its elements all at once, a text builds its image incrementally. Each sentence modifies and enriches what came before, creating a dynamic process of unfolding. In *On the Marriage of a Virgin*, Dylan Thomas demonstrates how this process can generate complexity through sequence. The opening word “waking” introduces an action without context; subsequent phrases layer meaning, gradually transforming the initial ambiguity into a richly structured image. The reader does not receive the scene fully formed but participates in its construction, assembling it step by step. This temporal development creates tension, anticipation, and depth—qualities unique to the linear medium of language. Yet this strength is inseparable from a limitation. The linear template of language forces multidimensional phenomena into a one-dimensional sequence. Simultaneous interactions, spatial relations, and complex configurations

must be translated into ordered descriptions, often losing aspects of their structure in the process. Writers and speakers must therefore select, arrange, and prioritize, guiding attention along a path that reveals the whole indirectly. This process resembles cinematic editing: a scene is not presented in its entirety but disclosed through a series of shots, each contributing to an overall impression. The viewer or reader reconstructs the simultaneity from the sequence, but the reconstruction is always mediated by the chosen order. The contrast between language and visual representation highlights this difference.

A painting such as *The Third-Class Carriage* by Honoré Daumier presents its elements simultaneously, allowing the viewer to grasp relationships at a glance. The arrangement of figures, the distribution of light, the balance of forms—all are available at once, inviting exploration rather than dictating a path. Language, by contrast, cannot avoid sequencing. It must lead the reader through the scene, shaping perception through order. This guidance can clarify and intensify meaning, but it also constrains interpretation, channeling thought along predetermined lines. Arnheim's insight is therefore double-edged. Linearity is both a tool and a distortion. It enables the articulation of complex ideas, the construction of narratives, and the communication of structured thought. At the same time, it reshapes the phenomena it represents, flattening multidimensional relations into sequential chains. To think solely in linear terms is to risk losing the simultaneity that underlies perception. The challenge, then, is not to abandon language but to recognize its limits—to see that behind every sequence lies a field of relations that cannot be fully captured by words alone. Thought, in its fullest form, must move between these modes, using language to guide and organize while remaining rooted in the richer, simultaneous structures of perception.

*Arnheim, R. (1969) Visual Thinking. Berkeley: University of California Press.*

### ***Between Sign and Image: Language as a Thin Perceptual Medium***

In *Visual Thinking*, Rudolf Arnheim dismantles the comforting division between language and imagery by insisting on a simple but radical premise: every medium available to the mind is perceptual. There is no realm of pure symbols detached from sensation. Words, no less than images or sounds, are perceived shapes—auditory patterns, visual marks, or motor traces—and therefore participate in the same fundamental economy of representation. The difference between language and other media is not categorical but proportional. Language does not escape perception; it merely uses it differently, relying far more heavily on arbitrary signs than on structural resemblance. This shift in proportion creates the illusion that language is non-perceptual, when in fact it is simply less transparently so. At its most basic level, language still exhibits isomorphic tendencies. It assigns distinct signs to distinct concepts, and it unfolds events in sequences that mirror temporal processes. In this sense, a sentence describing an action is no less pictorial than a film showing it frame by frame. Yet this resemblance is thin. Where a drawing of two dogs presents their separation through spatial differentiation, language must name each element and connect them through relational terms. The representation becomes indirect, mediated by convention rather than grounded in perceptual structure.

Much of linguistic meaning depends on arbitrary associations—like a red light signaling “stop”—where the sign bears no intrinsic resemblance to what it signifies. This reliance on convention marks language as a weakly isomorphic medium, positioned at one end of a continuum that ranges from highly structured visual forms to purely symbolic systems. The temptation to classify language as fundamentally different from images arises from this dominance of arbitrariness. But

Arnheim rejects such categorical thinking. All representational systems combine degrees of resemblance and convention. Onomatopoeic words, ideographs, and allegorical images occupy intermediate positions, demonstrating that the boundary between pictorial and symbolic is fluid. Language is not a separate species but a particular configuration within a broader perceptual spectrum. To isolate it as uniquely “linguistic” is to overlook the shared foundation that underlies all cognition: the capacity to organize perceptual forms into meaningful structures. This insight becomes clearer when we consider what a word actually is. As Edward Sapir observed, the sound or visual form of a word becomes linguistic only when it is linked to a concept. The perceptual pattern alone is insufficient; it must evoke a network of associations that constitutes meaning. Yet this network is anything but stable. A word like “house” does not correspond to a single, fixed image but to a vast range of possible forms, contexts, and uses. The apparent stability of language masks a deeper variability, where meanings shift depending on context, intention, and experience. Words are standardized in form but fluid in content, creating a tension between fixity and flexibility that defines their cognitive role. The instability of concepts becomes especially evident when they are detached from context. Roger Brown criticized early introspective accounts, such as those of Edward Titchener, for describing mental images that were idiosyncratic and irrelevant to conceptual definitions. A “cow” imagined as a vague rectangle with an exaggerated expression reveals not the essence of the concept but the randomness of association in the absence of situational grounding. Without context, concepts dissolve into arbitrary fragments. With context, they sharpen, selecting relevant features and suppressing irrelevant ones. A cow in a zoological classification, a cow in a religious iconography, and a cow in traffic each activate different aspects of the same conceptual field. Meaning is not contained within the word but emerges from its placement within a network of relations.

This dependence on context explains the frequent breakdown of language when it is treated as a repository of fixed meanings. James Deese recounts how students, instructed to use dictionary definitions, produced sentences like “The amoeba is a chaste animal.” The error lies not in misunderstanding the word but in misapplying a facet of its meaning outside an appropriate context. Dictionaries offer lists of possible uses, but they cannot determine which use is relevant in a given situation. Only the integration of a concept into a meaningful proposition can stabilize its interpretation. Definitions themselves are therefore provisional, gaining coherence only within the structures that give them purpose. In this respect, language resembles pictorial representation more closely than is often acknowledged. Both rely on perceptual associations, both evoke networks of meaning, and both depend on context for their intelligibility. The difference lies in specificity. A sculpture of a recumbent nude presents a concrete, richly detailed image that constrains interpretation, while the phrase “recumbent nude” functions as a flexible trigger, capable of evoking countless variations. The visual image is precise but rigid; the verbal label is vague but adaptable. This trade-off defines the complementary strengths of the two media. Visual forms excel at presenting structured relations directly, while language excels at recombining elements into new configurations. Words can be assembled into propositions with a freedom that pictorial elements rarely achieve without revealing their seams. Language thus operates as a system of evocation rather than depiction. Its standardized forms serve as tools for mobilizing perceptual imagery, allowing the mind to construct scenes, relations, and abstractions beyond what is immediately given. Individuality emerges not from the words themselves but from the ways they are combined, guiding the reconstruction of images in the listener or reader.

In this sense, language is both limited and powerful: limited in its intrinsic structure, powerful in its capacity to orchestrate the richer resources of perception. Arnheim’s analysis ultimately reframes the role of language within cognition. It is not a self-sufficient medium of thought but a

bridge—connecting abstract conceptual operations to the perceptual foundations from which they arise. Its apparent autonomy dissolves when we recognize that every word depends on images it cannot fully contain, every definition on contexts it cannot fix. Language does not replace perception; it extends and organizes it, functioning as a thin but indispensable layer within a far more complex cognitive system.

*Arnheim, R. (1969) Visual Thinking. Berkeley: University of California Press.*

### ***Thought Before Speech: The Silent Architecture of Animal Minds***

In *Thinking Without Words*, José Luis Bermúdez advances a decisive challenge to the long-standing assumption that thought depends upon language. Against the tradition that binds cognition to words, he articulates a framework in which thinking emerges as a graded phenomenon, distributed across species and developmental stages, rather than confined to the linguistic capacities of adult humans. The question is no longer whether animals think, but how they think—and what forms of cognition are available in the absence of language. This shift reorients both philosophy of mind and ethics, forcing a reconsideration of the boundaries of moral concern. At the foundation of Bermúdez's account lies a distinction between psychological and non-psychological explanations of behavior. Many actions can be described mechanistically, as products of conditioning or instinct, but such descriptions fail when confronted with flexible, context-sensitive responses. When an organism adapts to novel situations, anticipates outcomes, or selects among alternatives in a way that cannot be reduced to fixed associations, explanation must appeal to internal states—perceptions, desires, and proto-beliefs. These are not linguistic propositions but functional structures guiding action. The presence of such structures marks the emergence of genuine cognition, even in the absence of words.

This move destabilizes the simplistic hierarchy that places language at the origin of thought. Instead, Bermúdez distinguishes between non-propositional and propositional cognition. At the most basic level, non-linguistic creatures operate with what might be called minimal thoughts—context-bound representations tied closely to perception and action. These proto-thoughts are often spatial or imagistic, enabling navigation, recognition, and goal-directed behavior. They do not assert propositions about the world but nonetheless organize experience in meaningful ways. More sophisticated forms of cognition, however, approach propositional structure. Certain animals appear capable of representing not only immediate situations but also relations between events, supporting behaviors such as tool use, planning, and strategic interaction. These capacities suggest that the architecture of thought can approximate propositional reasoning without relying on linguistic encoding. Yet Bermúdez insists on a critical limit. Higher-order thought—the ability to think about one's own thoughts—requires what he calls intentional ascent, a capacity that depends on language. To treat a thought as an object of reflection demands a system of representation capable of re-describing its own contents. Language provides precisely such a system, allowing thoughts to be named, manipulated, and evaluated. Without it, cognition remains first-order: directed outward toward the world, not inward toward its own processes. This distinction preserves a role for language without granting it primacy over all forms of thought. It becomes a tool for reflection rather than the foundation of cognition itself. The same pattern appears in reasoning. Classical logic, with its explicit conditionals and inferential rules, is inseparable from linguistic structure. Non-linguistic animals do not reason in syllogisms. However, Bermúdez introduces the notion of proto-conditional reasoning to capture a different form of rationality. Animals can grasp causal regularities—if a certain event occurs, another will follow—and use this understanding to guide behavior.



This is not logical inference in the formal sense but a practical sensitivity to patterns in the environment. It is grounded in experience rather than articulated through symbols, yet it achieves many of the same functional outcomes: prediction, adaptation, and control. Such reasoning reveals that rationality itself is not monolithic but layered, with language-dependent logic representing only one, highly specialized form. The ethical implications of this framework are profound. If cognition exists along a continuum, then moral consideration cannot be restricted to beings possessing full linguistic and reflective capacities. The traditional appeal to higher-order thought as the criterion for moral status becomes unstable. Non-human animals, though lacking language, exhibit forms of understanding that are neither trivial nor mechanistic. They perceive, evaluate, anticipate, and act in ways that reflect structured engagement with their environments. To deny moral relevance to these capacities is to impose an arbitrary threshold that ignores the gradations of cognitive life. At the same time, Bermúdez cautions against romanticizing animal minds. The absence of higher-order thought imposes real limits. Without the ability to reflect on beliefs or entertain abstract propositions, non-linguistic cognition remains bound to the immediate and the concrete. It cannot generate the kinds of self-critical reasoning or long-term conceptual planning that characterize human thought.

Ethical evaluation must therefore navigate between two extremes: the reduction of animals to automatons and their elevation to fully rational agents. The challenge is to recognize the specificity of their cognitive capacities without collapsing them into human models. What emerges from Bermúdez's analysis is a reconfigured map of cognition. Thought is no longer a single faculty tied to language but a layered system in which different forms of representation and reasoning coexist. Language enriches this system, enabling reflection, abstraction, and explicit logic, but it does not create it. Beneath and alongside linguistic thought lies a vast domain of non-verbal cognition, shared with other animals and present even in human infancy. This domain is not a primitive residue but a functional foundation, shaping how organisms perceive and act in the world. To understand thinking without words is therefore not to diminish the role of language but to situate it within a broader ecology of mind.

*Bermúdez, J. L. (2003) Thinking Without Words. Oxford: Oxford University Press.*

### ***The Other Half of Meaning: How the Right Brain Makes Language Whole***

In the study *The Role of the Right Hemisphere in the Apprehension of Complex Linguistic Materials*, Howard Gardner together with Wendy Wapner and Suzanne Hamby overturns the long-standing assumption that language resides solely in the left hemisphere. What emerges is not a relocation of language, but a division of labor within it: the left hemisphere speaks, but the right hemisphere understands what speech is doing. Without it, language remains structurally intact yet existentially hollow—a sequence of correct sentences deprived of coherence, context, and human sense. The traditional model of language assigns to the left hemisphere the machinery of syntax, phonology, and lexical retrieval. This model is not wrong, but it is radically incomplete. Patients with right-hemisphere damage demonstrate that one can preserve grammar, vocabulary, and even precise recall while losing the ability to grasp what a story means. They can repeat sentences flawlessly, yet fail to understand why those sentences belong together. Language, in such cases, becomes a perfectly assembled mechanism that no longer connects to the world it is meant to describe. What disappears is not language itself, but its integration.

The central finding of the study lies in narrative breakdown. Right-hemisphere-damaged individuals struggle to organize events into meaningful wholes. When asked to reorder scrambled

sentences into a coherent story, they often fail—not because they cannot understand the sentences individually, but because they cannot perceive the structure that binds them. Narrative coherence requires the ability to hold multiple elements simultaneously, to grasp relationships across time, and to integrate them into a unified gestalt. This is precisely the function that the right hemisphere appears to sustain. Without it, language collapses into fragments—correct, but disconnected. This fragmentation reveals a deeper truth: meaning is not contained in sentences but emerges from their relations. The right hemisphere operates not at the level of discrete units but at the level of configuration. It perceives patterns, emotional tones, and contextual cues that cannot be reduced to syntax. In this sense, it functions as the interpreter of language's implicit dimensions—the unspoken structures that give speech its direction and weight. The left hemisphere may construct propositions, but the right hemisphere situates them within lived reality. Emotional comprehension further illustrates this division. Patients with right-hemisphere damage frequently misinterpret or flatten emotional content, offering responses that are logically consistent yet contextually inappropriate. They may understand what is said but not how it is meant. Emotion, in narrative, is not an accessory; it is a structuring principle that signals relevance, intention, and consequence. The inability to integrate emotional cues leads to distortions of meaning, where stories are interpreted in ways that are technically plausible but fundamentally misguided. Logic replaces understanding, and inference replaces insight. Humor provides perhaps the most striking example of this deficit. To grasp a joke requires more than decoding words—it demands sensitivity to incongruity, timing, and contextual reversal.

Right-hemisphere patients often select punchlines that are grammatically or logically related but miss the comedic shift that defines humor. Their interpretations remain literal, unable to accommodate the layered meanings that humor exploits. In this failure, one sees the limits of purely propositional language. Humor depends on the ability to move between frames of reference, to perceive what is implied rather than stated. This flexibility appears to be a right-hemisphere function, one that transforms language from a system of statements into a medium of play and insight. The study also reveals a paradox. Right-hemisphere patients sometimes show remarkable memory for detail, recalling sentences verbatim while failing to understand their significance. This dissociation underscores the difference between retention and comprehension. Memory preserves fragments; understanding organizes them. The right hemisphere does not store language—it shapes it into meaningful wholes. Without this shaping, language becomes archival rather than functional, a repository of disconnected elements rather than a tool for navigating experience. What emerges from these findings is a reconceptualization of language itself. Language is not merely a linear sequence of words governed by rules; it is a multidimensional system that requires both analytic decomposition and holistic integration. The left hemisphere provides the former, the right hemisphere the latter. Their cooperation produces what we recognize as meaningful communication. When this balance is disrupted, language does not disappear—it disintegrates into its component parts, revealing the hidden architecture that normally remains invisible. This insight resonates with broader themes in cognitive science. Across domains, from perception to memory, cognition appears to rely on the interplay between discrete processing and gestalt integration. The right hemisphere embodies this integrative principle within language, ensuring that words do not merely follow one another but belong together. It restores simultaneity to the linear flow of speech, allowing multiple elements to be held in relation rather than reduced to sequence. In doing so, it transforms language from a chain of symbols into a field of meaning.

The implications extend beyond neuropsychology into philosophy. If meaning depends on integration, then it cannot be localized in individual words or even sentences. It arises from patterns that span across them, patterns that are sensitive to context, emotion, and expectation. The right

hemisphere, in this sense, is not an auxiliary system but a condition of possibility for meaning itself. It reveals that understanding is not the sum of linguistic parts but the organization of their relations. Language, therefore, is always already more than language—it is a cognitive synthesis in which structure and context, logic and intuition, analysis and gestalt converge.

*Wapner, W., Hamby, S. and Howard Gardner (1981) The role of the right hemisphere in the apprehension of complex linguistic materials. Brain and Language, 14(1), pp. 15–33.*

### ***The Moral Engine of Division: Why Conviction Separates as Much as It Unites***

In *The Righteous Mind*, Jonathan Haidt reframes one of the most persistent illusions of modern culture—the belief that moral disagreement stems from ignorance or bad reasoning. Instead, he reveals a more unsettling architecture: human beings are not primarily rational agents who arrive at moral conclusions through deliberation, but intuitive creatures who feel first and justify later. What appears as disagreement over facts is, at a deeper level, a clash of moral intuitions shaped by evolution, culture, and group identity. The famous plea of Rodney King—“Can we all get along?”—thus becomes less a question of goodwill and more a question of cognitive possibility. Haidt’s central claim is deceptively simple: intuitions come first, reasoning second. Moral judgment is immediate, automatic, and affectively charged, while reasoning functions largely as a post hoc defense. The metaphor of the rider and the elephant captures this asymmetry. The rider, representing conscious reasoning, believes itself to be in control, but in reality it serves the elephant—our vast, unconscious system of intuitions. Arguments, evidence, and logic rarely move the elephant; instead, they are recruited to justify where it already stands. This explains the peculiar futility of moral debate: participants do not exchange reasons to discover truth, but to defend positions already felt as self-evident.

Yet Haidt pushes further, challenging the narrow moral frameworks dominant in modern secular thought. He argues that morality is not reducible to harm and fairness, as often assumed in liberal discourse. Instead, it operates through multiple intuitive dimensions—care, fairness, loyalty, authority, sanctity, and liberty—each rooted in evolutionary adaptations for social living. Different cultures and political groups emphasize different combinations of these “moral tastes,” much like cuisines built from the same sensory palette. What appears irrational or immoral from one perspective often reflects a different configuration of moral priorities. The conservative emphasis on authority or sanctity, for instance, is not a deviation from morality but an expression of alternative moral intuitions. This plurality of moral foundations reveals why mutual incomprehension is so persistent. Individuals are not merely disagreeing about conclusions; they are operating within different moral universes, structured by different intuitive saliences. Reasoning cannot bridge this gap because it operates within the same framework that produced the intuition. To argue from fairness to someone whose moral system prioritizes loyalty is to speak across dimensions that do not align. Understanding, therefore, requires not stronger arguments but a shift in perspective—an attempt to inhabit the moral landscape of the other. The most profound insight of Haidt’s work lies in the paradox that morality both binds and blinds. The same psychological mechanisms that enable cooperation within groups—shared norms, emotional alignment, collective identity—also generate division between them. Humans are, in Haidt’s terms, “hivish” creatures, capable of extraordinary cooperation when united by a common moral framework. But this unity comes at a cost: it narrows perception, intensifies in-group loyalty, and fosters suspicion or hostility toward outsiders.

Moral conviction becomes not only a guide to action but a lens that filters reality, reinforcing group cohesion while obscuring alternative viewpoints. In this light, self-righteousness is not an aberration but a structural feature of human cognition. To feel morally right is to feel aligned with one's group, one's identity, and one's sense of order in the world. Doubt threatens not only beliefs but belonging. This is why moral disagreements escalate so easily into conflict: they are experienced not as intellectual differences but as challenges to the very foundations of self and community. The intensity of political and religious division reflects the depth of this psychological investment. Haidt does not propose abandoning morality or retreating into relativism. Instead, he advocates a form of reflective humility grounded in an understanding of our own cognitive limitations.

If our judgments arise from intuitions we did not choose, and if our reasoning serves those intuitions more than it scrutinizes them, then certainty becomes suspect. This does not invalidate moral commitment but situates it within a broader awareness of its origins. It invites a shift from condemnation to curiosity, from argument to inquiry. The possibility of “getting along” thus depends not on eliminating disagreement but on recognizing its roots. Moral conflict is not a failure of reason but a consequence of the very capacities that make social life possible. To navigate it requires an expansion of perspective—a willingness to see that what feels self-evident is, in fact, contingent, shaped by forces both biological and cultural. In this recognition lies the beginning of dialogue, not as a contest of arguments, but as an encounter between different moral worlds.

*Haidt, J. (2012) The Righteous Mind: Why Good People Are Divided by Politics and Religion. New York: Pantheon Books.*

### ***The Elephant Moves First: Intuition as the Hidden Author of Moral Judgment***

In *The Righteous Mind*, Jonathan Haidt dismantles one of the most enduring illusions of moral philosophy: that humans arrive at ethical conclusions through careful reasoning. Instead, he reveals a far more asymmetrical structure of the mind, captured in the now-famous metaphor of the rider and the elephant. The rider—our conscious reasoning—appears to guide, justify, and explain. But beneath it stands the elephant—vast, automatic, and decisive. And it is the elephant that moves first. The rider, despite its self-image as master, is largely a servant. This inversion reframes morality at its root. Moral judgment does not begin with principles but with reactions. A sudden feeling—often disgust, approval, or unease—arises before any articulated reason. Only afterward does the mind search for justifications, assembling arguments that give the appearance of rational deliberation. The process is not one of discovery but of defense. Reason becomes rhetorical, not investigative. It persuades others and reassures the self, but rarely challenges the initial intuition that set the judgment in motion. The power of this claim becomes evident in the kinds of moral dilemmas Haidt employs. Situations involving taboo or unconventional behavior—acts that provoke disgust without causing harm—expose the limits of rationalist morality.

When individuals condemn such actions yet struggle to explain why, they reveal a gap between intuition and reasoning. The judgment is firm, but the reasoning is fragile. This phenomenon, often called “moral dumbfounding,” demonstrates that moral conviction can persist even when explicit justification collapses. The mind knows before it knows why. This challenges the dominant tradition in moral psychology, particularly the rationalist frameworks of Jean Piaget and Lawrence Kohlberg, which portrayed moral development as a progression toward increasingly sophisticated reasoning about justice and fairness. In that model, children grow into moral agents by learning to think more abstractly and consistently. Haidt does not deny that reasoning develops, but he

repositions it. Reasoning refines, articulates, and sometimes moderates intuitions—but it does not generate them. The foundations of morality lie elsewhere, in intuitive responses shaped by evolution and culture. This shift opens the door to a broader understanding of morality itself. If moral judgment is intuitive, then it cannot be limited to a single set of principles. Instead, it reflects multiple moral sensitivities, each attuned to different aspects of social life. The Western emphasis on harm and fairness, central to Kohlberg's framework, represents only a subset of these sensitivities. Anthropological work by figures such as Richard Shweder reveals that many cultures organize morality around additional concerns—purity, hierarchy, loyalty, and respect. What appears irrational or irrelevant from one perspective may be deeply moral from another. The disagreement is not about reasoning but about which intuitions are activated. Here the metaphor of the elephant becomes even more revealing. The elephant is not a single force but a complex system of intuitions, each evolved to solve recurring problems of social living: cooperation, conflict, group cohesion, and survival. These intuitions operate quickly and automatically, often below conscious awareness. They are shaped by both biology and culture, producing moral diversity across societies.

The rider, in turn, constructs narratives that make these intuitions appear coherent and principled, even when they arise from different and sometimes conflicting sources. This explains the persistence and intensity of moral disagreement. When two individuals argue about an issue, they are rarely debating from the same intuitive foundation. Each is guided by a different elephant, responding to different moral cues. Reasoning cannot easily bridge this divide because it operates within the framework established by intuition. Arguments that fail to resonate emotionally are unlikely to persuade, no matter how logically sound they may be. Moral dialogue becomes a clash of intuitions disguised as a contest of reasons. The implications are both sobering and constructive. On one hand, the ideal of purely rational moral discourse becomes untenable. We cannot simply reason our way to agreement because reasoning itself is shaped by prior intuitions. On the other hand, understanding this structure offers a new path toward engagement. If intuitions drive judgment, then effective communication must address them directly—through narratives, metaphors, and experiences that resonate at the intuitive level. Persuasion becomes less about winning arguments and more about aligning sensibilities.

At a deeper level, Haidt's model invites a form of intellectual humility. If our strongest convictions arise from processes we do not control, then certainty becomes suspect. The feeling of being right does not guarantee that we are right; it reflects the strength of our intuitions. Recognizing this does not require abandoning moral commitment, but it does require acknowledging its origins. It shifts the task of morality from asserting truths to understanding the forces that make those truths feel self-evident. In this light, the rider and the elephant are not adversaries but collaborators. The elephant provides direction, energy, and immediate judgment; the rider offers reflection, communication, and the possibility—however limited—of revision. Moral progress, if it occurs, does not come from the rider overpowering the elephant, but from the gradual reshaping of the elephant itself through experience, culture, and social interaction. Intuition moves first, but it is not immutable. It can be guided, though never fully mastered.

*Haidt, J. (2012) The Righteous Mind: Why Good People Are Divided by Politics and Religion. New York: Pantheon Books.*

***The Hive Within Us: How Morality Unites and Divides***

In *The Righteous Mind*, Jonathan Haidt advances one of the most unsettling insights of moral psychology: the very mechanisms that make human cooperation possible are the same ones that make conflict inevitable. His striking metaphor—humans as “90 percent chimp and 10 percent bee”—captures a dual inheritance. We are at once self-interested primates and group-oriented creatures capable of dissolving individuality into collective purpose. Morality is the bridge between these two natures, but also the fault line along which they fracture. The experience that follows collective trauma, such as the aftermath of September 11, reveals this hidden architecture with unusual clarity. Individuals who ordinarily emphasize autonomy and critical distance suddenly feel an irresistible pull toward unity, symbolized through flags, rituals, and acts of solidarity. This shift is not the product of deliberation; it is the activation of an ancient system designed for group cohesion under threat. The self expands to include the group, and actions that once seemed symbolic or excessive acquire immediate emotional necessity.

What surfaces in such moments is not a new identity, but a latent one—always present, usually dormant. This “groupishness” poses a problem for classical evolutionary accounts centered on individual competition. If natural selection rewards selfishness, why do humans display such readiness to cooperate, even to the point of self-sacrifice? The answer lies in what evolutionary theory now describes as multilevel selection, a framework already anticipated by Charles Darwin. Selection operates not only among individuals within groups but also among groups themselves. Groups that achieve higher levels of cooperation—through trust, loyalty, and shared norms—outcompete those that fail to coordinate. Over time, this dynamic favors psychological mechanisms that suppress selfishness when group success is at stake. Yet this balance is inherently unstable. Within any cooperative group, individuals can benefit by free-riding—taking advantage of collective effort without contributing. The persistence of cooperation therefore requires mechanisms to detect, punish, or exclude such behavior. Morality emerges as precisely such a mechanism: a system of norms, emotions, and judgments that regulate behavior in the interest of group cohesion. It rewards loyalty and fairness, condemns betrayal and exploitation, and binds individuals into a shared moral order. But this binding comes at a cost. The same mechanisms that enforce cohesion also generate exclusion. To define “us” is to imply “them.” Moral systems sharpen group boundaries, intensify identity, and amplify differences. What is experienced internally as righteousness appears externally as hostility. The group becomes not only a source of belonging but a lens that filters perception, privileging in-group values while distorting or dismissing those of others. In this sense, morality does not merely guide behavior—it structures reality itself. The analogy to bees is not incidental. In certain evolutionary transitions, individual units—cells, organisms, or agents—become integrated into higher-level entities. In eusocial species like bees, the colony functions as a “superorganism,” with individuals acting as specialized components of a larger whole.

Human societies, though less rigid, exhibit a parallel tendency. Through shared intentionality—the ability to align minds around common goals—humans coordinate actions with a precision and scale unmatched in the animal kingdom. This capacity allows for the construction of complex institutions, cultures, and moral systems that transcend individual perspectives. Shared intentionality is the cognitive foundation of this transformation. Unlike other primates, humans can create and sustain joint commitments, imagining not only what is but what ought to be within a collective framework. This enables planning, division of labor, and the enforcement of norms. It also allows for the internalization of group values, such that individuals act not merely for personal gain but for the perceived good of the collective. The self becomes permeable, partially constituted by the group to which it belongs. Cultural evolution amplifies this process. Practices such as ritual,

symbol use, and moral storytelling create environments in which cooperative traits are reinforced. Over generations, these cultural patterns interact with genetic selection, producing what is known as gene–culture coevolution. Traits that support group cohesion—such as empathy, conformity, and sensitivity to reputation—become increasingly pronounced. Human nature is thus not fixed but dynamically shaped by the interplay of biological inheritance and cultural innovation. The result is a species uniquely capable of forming large, cohesive groups, yet perpetually vulnerable to division along those very lines. The phrase “morality binds and blinds” captures this dual function with precision. Morality binds by creating shared meaning, aligning behavior, and enabling cooperation. It blinds by narrowing perspective, reinforcing in-group narratives, and obscuring alternative viewpoints. The more tightly a group is bound, the more resistant it becomes to external perspectives. Moral certainty intensifies, and with it, the potential for conflict.

This dynamic explains why the most cooperative societies can also be the most divided. Their internal cohesion is achieved through mechanisms that simultaneously heighten external opposition. To understand this structure is not to escape it but to become aware of its operation. Human beings cannot shed their groupish nature, but they can reflect on it. Recognizing that moral conviction is shaped by group membership introduces a degree of distance between intuition and judgment. It reveals that what feels universally true may in fact be locally constructed. This awareness does not dissolve moral commitment, but it complicates it, opening the possibility of engagement across group boundaries. The tension between chimp and bee remains unresolved. Individual interest and group cohesion continue to pull in different directions, producing the dynamic equilibrium that defines human social life. Morality is the mechanism that negotiates this tension, binding individuals into groups while setting those groups against one another. It is both the source of our greatest achievements and the origin of our deepest divisions.

*Haidt, J. (2012) The Righteous Mind: Why Good People Are Divided by Politics and Religion. New York: Pantheon Books.*

### ***The Switch That Dissolves the Self: When the Individual Becomes the Collective***

In *The Righteous Mind*, Jonathan Haidt identifies a hidden mechanism at the core of human social life—a latent capacity he calls the “hive switch.” This is not a metaphorical flourish but a psychological threshold: a point at which the boundaries of the self loosen, and the individual is absorbed into a larger whole. In this state, the logic of personal interest gives way to a different mode of being, one oriented toward unity, trust, and shared purpose. The self does not disappear, but it is reconfigured, expanded into something collective. The phenomenon is not speculative. It is vividly documented in the reflections of William H. McNeill, who, during military drills in the 1940s, experienced what he later described as “muscular bonding.” Marching in synchrony with others produced not boredom but elevation—a sense of enlargement, as if the individual body had become part of a larger organism. The rhythm of coordinated movement dissolved isolation, replacing it with a shared pulse. What seemed like mechanical repetition revealed itself as a form of collective consciousness. This transformation is not limited to the battlefield. It appears wherever human bodies and minds synchronize—through ritual, music, dance, or shared emotional intensity. Émile Durkheim named this state collective effervescence: a surge of emotional energy that binds individuals into a unified group. In such moments, the distinction between self and other becomes permeable.

The group is not merely an aggregation of individuals but an experiential reality, felt as something sacred, larger than any of its parts. The hive switch, in Haidt’s account, is the mechanism that

enables this transition. It is “conditional” because it does not operate continuously. Most of the time, human beings function as individuals, guided by self-interest, comparison, and competition—the inheritance of their primate ancestry. But under certain conditions—threat, ritual, shared purpose, or aesthetic intensity—the switch is activated. The mind shifts from “I” to “we,” from calculation to participation. Action becomes less about personal outcome and more about collective movement. Evolutionarily, this capacity presents a paradox. Natural selection favors individual survival, yet the hive switch enables behaviors that appear to contradict it—self-sacrifice, unconditional trust, and coordinated action that benefits the group at potential cost to the individual. The resolution lies in multilevel selection. Groups that could activate this switch—binding members into cohesive units—outcompeted those that could not. The hive, once formed, became a more powerful agent of survival than the isolated individual. Yet the same mechanism that binds also excludes. The hive is not universal; it is always a particular “we.” The emotional intensity that fosters trust within the group often heightens suspicion or hostility toward those outside it. The boundary of the hive becomes a moral boundary, dividing the world into insiders and outsiders. The experience of unity is inseparable from the experience of difference. The hive switch, therefore, is not merely a source of cooperation but also a generator of division. Its activation depends on specific triggers, many of which are deeply embedded in human biology and culture.

Awe is one such trigger. Encounters with vastness—natural, aesthetic, or conceptual—can dissolve the ego’s centrality, producing a sense of connection to something larger. This experience, described by Ralph Waldo Emerson as the vanishing of “mean egotism,” reveals the self as part of a wider field. It is a quiet form of hive activation, without the intensity of collective ritual but with a similar expansion of perspective. Other triggers are more explicitly social. Rhythmic movement, synchronized sound, and shared emotional expression—whether in traditional rituals or modern gatherings—align bodies and minds into a common pattern. Even biochemical pathways participate in this process. Oxytocin, often called the bonding hormone, enhances trust and cooperation, but primarily within the group. Mirror neuron systems allow individuals to resonate with the actions and emotions of others, creating a feedback loop of shared experience. These mechanisms do not create the hive but facilitate its emergence, lowering the threshold at which individuals can enter into collective states. The implications extend beyond anthropology into the structure of modern life. Organizations that succeed in generating strong group identity—through shared goals, rituals, and synchronized activity—tap into the hive switch, producing cohesion and motivation that exceed what individual incentives alone can achieve. Communities rich in collective practices—whether religious, civic, or cultural—offer repeated opportunities for this form of bonding, contributing to social resilience and meaning. Yet the same dynamics can be exploited. Political movements and regimes that manipulate group identity can activate the hive in ways that suppress dissent, elevate conformity, and justify exclusion or violence. The hive switch is morally neutral; its consequences depend on the structures within which it is engaged. At its deepest level, the hive hypothesis reveals a fundamental tension in human nature.

We are neither purely individual nor purely collective beings. We oscillate between these modes, shaped by context, culture, and biology. Our greatest experiences of meaning often arise when the self is transcended—when we feel part of something larger, whether a community, a cause, or a moment of shared intensity. Yet these same experiences can narrow our vision, binding us to particular identities and blinding us to others. To understand the hive switch is not to escape it, but to recognize its presence. It is to see that the desire for unity, so often invoked in moments of crisis or celebration, is rooted in a deep cognitive capacity—one that can inspire cooperation or fuel division. The challenge is not to suppress this capacity, but to become aware of its operation, to



understand when and how it is activated, and to reflect on the boundaries it creates. In this awareness lies the possibility of engaging the hive without being wholly consumed by it—of participating in collective life while retaining the ability to step back, to see not only the “we” but also the others who stand beyond it.

*Haidt, J. (2012) The Righteous Mind: Why Good People Are Divided by Politics and Religion. New York: Pantheon Books.*

### ***The Sacred Game: Ritual, Belief, and the Architecture of Belonging***

In *The Righteous Mind*, Jonathan Haidt reframes religion not as a doctrine to be evaluated for truth, but as a practice to be understood for its function. What appears, at the level of belief, as a system of supernatural claims reveals, at the level of experience, a far more enduring structure: a technology of cohesion. Religion, in this sense, is not primarily about gods but about groups. It is a way of transforming individuals into a collective, of binding separate lives into a shared rhythm, a shared identity, a shared moral world. The spectacle of a college football game provides a striking illustration of this mechanism in secular form. The uniforms, the chants, the synchronized gestures, the emotional crescendos—these are not trivial embellishments but ritual forms. They organize bodies and minds into alignment, producing what Émile Durkheim called collective effervescence: a state in which the individual self dissolves into the energy of the group. The stadium becomes a temporary sacred space, the team a symbolic totem, and the participants a moral community united not by abstract reasoning but by shared experience. In such moments, belief is secondary. One need not articulate a doctrine to feel the pull of the collective. The ritual itself does the work. It synchronizes movement, amplifies emotion, and creates a sense of belonging that is both immediate and profound. What religion achieves through liturgy and symbol, the stadium achieves through spectacle and repetition.

The form is different, but the function is the same: to activate the hive, to transform “I” into “we.” This perspective challenges the dominant critique of religion as merely a set of irrational beliefs. Thinkers like Richard Dawkins or Sam Harris focus on the propositional content of religion—its claims about gods, miracles, and the supernatural—and judge it by the standards of empirical truth. From this angle, religion appears as error, even danger. But such a critique misses the deeper structure. Religion persists not because its beliefs are compelling as explanations, but because its practices are effective as social bonds. To understand religion, one must shift from the question “Is it true?” to the question “What does it do?” What it does is solve a fundamental problem of human existence: the problem of cooperation. Individuals, driven by self-interest, must find ways to trust, to coordinate, to act together. Rituals, symbols, and shared narratives provide the scaffolding for this coordination. They create a moral framework in which cooperation is not merely advantageous but meaningful. The sacred is not an illusion imposed on reality; it is a way of organizing reality into something livable. Anthropological and evolutionary perspectives reinforce this view. Scholars such as Scott Atran and Joseph Henrich argue that religious systems evolved through cultural selection because they enhanced group cohesion. Communities that developed practices demanding commitment—costly rituals, shared sacrifices, visible markers of identity—were more stable and more successful. The very irrationality of these practices becomes their strength. By requiring actions that cannot be justified by immediate self-interest, they signal commitment and build trust. The sacred, in this sense, is not opposed to rationality but operates on a different plane, one where the goal is not explanation but integration. Yet this binding power has its shadow. The same mechanisms that create solidarity within a group can intensify division between groups. The sacred boundary that unites insiders also excludes outsiders. Religion, like

the hive switch it activates, is inherently parochial. It fosters altruism, but primarily toward those who share the same symbols, the same rituals, the same identity. The history of religious conflict is not an aberration but an extension of this dynamic.

The group that is most tightly bound is also most sharply defined. In modern secular societies, the decline of traditional religion does not eliminate this need for collective binding. It displaces it. New forms emerge—nationalism, political movements, cultural rituals, even sports—that replicate the structure of religious practice without its theological content. The stadium, the rally, the festival: these become sites where the sacred is reconstituted in secular terms. The persistence of these forms suggests that the need they address is not contingent but fundamental. Human beings require not only individual freedom but collective belonging. The absence of shared rituals risks what Durkheim called anomie—a condition of disconnection and normlessness in which individuals lose their sense of place within a larger whole. The challenge, then, is not to eradicate the mechanisms of binding, but to understand and perhaps reshape them. If religion is a technology of cohesion, the question becomes how this technology can be used without reproducing its most destructive tendencies.

Can communities be formed that bind without blinding, that create solidarity without exclusion? This is not a question that can be answered purely at the level of theory. It requires attention to practice—to the rituals, symbols, and narratives that structure collective life. What the analysis of religion reveals is that belief alone does not sustain a community. It is the repeated, embodied experience of acting together, of feeling together, that creates the sense of “we.” Whether in a temple or a stadium, the underlying process is the same: the transformation of isolated individuals into a coordinated whole. Religion, in this light, is neither a relic of the past nor an anomaly of human thought. It is an expression of a deep cognitive and social capacity—the capacity to become more than oneself by becoming part of something larger.

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### ***The Discipline of Disagreement: Moral Pluralism and the Possibility of Political Intelligence***

In *The Righteous Mind*, Jonathan Haidt confronts a paradox that defines modern political life: the very moral systems that make cooperation possible also make disagreement almost impossible. Politics, long dismissed as inherently combative—“not beanbag,” as the old phrase goes—has intensified into something more corrosive than competition. It has become moral estrangement. The question, then, is not whether conflict can be eliminated, but whether it can be transformed—whether disagreement itself can become a disciplined, constructive force rather than a destructive one. The contemporary condition is marked by polarization not merely of opinion but of perception. Citizens no longer disagree about solutions; they inhabit different moral worlds. What one side experiences as justice, the other interprets as disorder. What one calls compassion, the other names irresponsibility. This divergence is not accidental. It arises from distinct moral foundations—deeply embedded intuitive structures that guide judgment long before reasoning begins. Liberals tend to organize their moral universe around care, equality, and liberation from harm. Conservatives, by contrast, distribute moral weight more broadly, incorporating loyalty, authority, and sanctity alongside fairness understood as proportionality.

These are not competing preferences within a shared framework; they are different architectures of value. Each generates its own narrative of what society is and what it ought to become. The

liberal narrative is fundamentally emancipatory: a movement away from constraint, hierarchy, and inherited limitation toward autonomy and equality. The conservative narrative is preservational: a defense of accumulated structures—family, tradition, institutions—that sustain order and continuity. These narratives do not merely justify policies; they structure perception itself. Facts are not neutral inputs but are interpreted through these moral lenses, often reshaped to maintain coherence within the system. This is why argument so frequently fails. It assumes a shared ground that does not exist. To understand this failure, one must abandon the assumption that political reasoning is primarily rational. It is, instead, justificatory. Intuitions come first; reasoning follows as advocate rather than judge. In this sense, political debate resembles less a search for truth than a contest of narratives, each reinforced by its own internal logic. The more individuals invest in a moral framework, the more resistant they become to disconfirming evidence, because such evidence threatens not just beliefs but identity. Polarization, then, is not simply disagreement; it is mutual incomprehension stabilized by moral conviction. Yet within this impasse lies a possibility. If moral frameworks are partial rather than complete, then each captures aspects of social reality that the others neglect. The liberal sensitivity to suffering exposes injustices that stability can conceal. The conservative concern for order preserves the conditions under which cooperation is possible. The libertarian emphasis on individual freedom guards against the overreach of collective power. These are not mutually exclusive truths but interdependent ones. A functioning society requires their tension. This insight echoes the argument of John Stuart Mill, who maintained that opposing viewpoints are not obstacles to truth but conditions of its emergence. A society that silences one perspective impoverishes itself, losing the corrective force that prevents error from hardening into dogma. In this light, polarization is not merely a problem of excess conflict but of failed integration. The voices remain, but they no longer interact productively. They speak past one another, each reinforcing its own coherence while denying the legitimacy of the other. The concept of moral capital clarifies what is at stake in this failure.

Moral capital consists of the norms, institutions, and practices that sustain cooperation over time. It is not immediately visible, like infrastructure, but its absence becomes apparent when it collapses. Conservatives emphasize the fragility of this capital, warning that rapid change can erode the trust and stability upon which social life depends. Liberals, conversely, emphasize the injustices that such structures can perpetuate, arguing that stability without fairness is itself a form of harm. Both perspectives are correct within their domains. The difficulty lies in balancing them—reforming without dismantling, preserving without stagnating. Libertarian thought introduces a further dimension by highlighting the role of decentralized systems, particularly markets, in coordinating human activity. Markets can generate innovation and efficiency, but they are not self-sufficient. They depend on legal frameworks, cultural norms, and shared trust—all elements of moral capital. Without these, freedom becomes exploitation rather than opportunity. Thus, each perspective reveals a dependency on the others. No single framework can sustain a complex society on its own. The challenge, therefore, is not to eliminate disagreement but to cultivate a form of disagreement that is epistemically productive. This requires a shift from a Manichaean model—politics as a battle between good and evil—to a dialectical one, in which opposing views are understood as partial truths. Such a shift is not merely intellectual but institutional. Polarization is reinforced by structural conditions: electoral systems that reward extremity, media environments that amplify outrage, and social networks that segregate communities into echo chambers. Reforming these structures is essential if constructive disagreement is to become possible. Yet structural reform alone is insufficient. The deeper transformation is cognitive and moral. It involves recognizing that one's own moral framework is not the entirety of truth but a perspective shaped by experience, culture, and intuition.

This recognition does not require abandoning conviction; it requires situating conviction within a broader field of possibilities. It demands a form of intellectual humility that is rare precisely because it is difficult. To disagree constructively is to hold two positions simultaneously: that one's own view is justified, and that it may be incomplete. In this sense, the possibility of a less destructive politics depends on a reconfiguration of how disagreement itself is understood. Rather than a failure of consensus, disagreement becomes a resource—a means of revealing the limits of any single perspective. When approached in this way, political conflict can generate not paralysis but refinement, not division but a more complex form of unity. The goal is not harmony in the sense of uniformity, but harmony in the sense of balance—a dynamic equilibrium in which opposing forces sustain rather than destroy one another. Such a vision does not promise the end of conflict. It acknowledges that conflict is intrinsic to pluralistic societies. But it reimagines conflict as something that can be shaped, disciplined, and made productive. In a world where we are, as Haidt suggests, “stuck here for a while,” the task is not to eliminate difference but to learn how to live with it intelligently. The future of political life depends not on agreement, but on the quality of our disagreement.

*Haidt, J. (2012) The Righteous Mind: Why Good People Are Divided by Politics and Religion. New York: Pantheon Books.*

### ***The Plural Mind: From Moral Division to Shared Humanity***

In *The Righteous Mind*, Jonathan Haidt brings his argument to a decisive clarity: human beings are not divided because they are irrational, but because they are structured differently at the level of moral intuition. What appears as conflict over ideas is, in fact, a conflict between moral architectures—systems that precede reasoning and shape it from within. The journey through moral psychology leads to a conclusion that is both unsettling and liberating: disagreement is not a failure of intelligence but a consequence of how the mind is built. The first principle—intuition before reasoning—destroys the comforting illusion that argument alone can resolve division. The image of the rider and the elephant is not merely illustrative; it is diagnostic. Conscious reasoning, the rider, serves largely as a strategist for intuitions already formed by the elephant. This insight, anticipated by David Hume, reframes political and moral debate as a process of post hoc justification rather than discovery. The implication is not that reasoning is useless, but that its role is secondary, often rhetorical. Recognizing this introduces a necessary humility: one's certainty is not evidence of truth but of alignment with one's intuitions. The second principle—moral plurality—extends this humility outward.

Through encounters with cultural difference, Haidt reveals that morality cannot be reduced to a single dimension such as harm or fairness. Influenced by thinkers like Richard Shweder and Émile Durkheim, the argument expands morality into a multidimensional system: care, fairness, loyalty, authority, sanctity, and liberty. Each society, and each political ideology, emphasizes different combinations of these foundations. The result is not relativism in the sense of arbitrariness, but pluralism in the sense articulated by Isaiah Berlin—a recognition that human values are many, often in tension, and cannot be reduced to a single coherent order without loss. The third principle—morality binds and blinds—introduces the evolutionary dimension. Drawing on Charles Darwin and Durkheim's concept of *Homo duplex*, Haidt shows that human beings are both individual and collective creatures. The “hive switch” names a latent capacity: under certain conditions, individuals transcend self-interest and merge into a group identity. This capacity explains religion, nationalism, and political movements. It also explains why moral systems are so resistant to critique: they are not merely sets of beliefs but mechanisms of cohesion. To challenge

them is to threaten the group itself. Thus, morality binds by creating solidarity, and blinds by excluding alternative perspectives. From these principles emerges an explanation of division that avoids the simplifications of good versus evil. People are not enemies because they choose to be; they are aligned with different moral matrices that structure their perception of reality. Bridging this divide requires more than argument. It requires a reorientation of attitude—from certainty to curiosity, from condemnation to inquiry. To engage constructively with those who think differently is to recognize that their framework, however alien, may capture aspects of reality one's own framework obscures. This is not a call to abandon conviction but to situate it within a broader understanding of human cognition. The extension of this argument into contemporary cultural conflict reveals a more dangerous distortion: what *The Coddling of the American Mind* calls the “Untruth of Us Versus Them.” This is not ordinary moral disagreement but pathological dualism—the division of the world into wholly good and wholly evil actors.

As Jonathan Sacks observes, this form of dualism transforms moral life into a battlefield of absolutes, eliminating the possibility of dialogue. It is not merely incorrect; it is corrosive. It replaces complexity with caricature, turning opponents into enemies and disagreement into moral transgression. The campus incidents described—at Claremont McKenna College and Yale University—illustrate how this dynamic unfolds. Actions are interpreted not in context but within a binary framework of oppression and virtue. Intentions become irrelevant; identity determines moral status. The result is a culture of accusation and fear, where dialogue is replaced by denunciation. This is not an excess of moral concern but a misapplication of it—a system in which the mechanisms of moral judgment are intensified while the capacity for interpretation is diminished. The underlying force is tribalism, a tendency demonstrated experimentally by Henri Tajfel through the minimal group paradigm. Even arbitrary distinctions can generate in-group favoritism and out-group hostility. When combined with moral narratives, these tendencies become powerful engines of division. Identity politics, in its common-enemy form, amplifies this effect by uniting individuals through opposition rather than shared humanity. It mobilizes effectively but at the cost of deepening fragmentation. Against this stands an alternative: common-humanity identity politics, exemplified by Martin Luther King Jr.. This approach does not deny injustice but frames it within a universal moral horizon, appealing to shared values rather than exclusive identities.

It recognizes that persuasion requires connection, not condemnation. The example of Hawk Newsome speaking at a pro-Trump rally demonstrates that even in highly polarized contexts, appeals to common ground can disrupt tribal dynamics and open space for dialogue. The distinction between these approaches is not merely strategic but conceptual. One constructs identity through opposition; the other through inclusion. The consequences are profound. A culture dominated by call-out practices and moral surveillance generates anxiety, self-censorship, and intellectual stagnation. It undermines the very conditions required for learning and inquiry. Universities, which should function as spaces of exploration, risk becoming arenas of moral enforcement. The cost is not only social but cognitive: when individuals fear error more than they value discovery, thought itself becomes constrained. The conclusion that emerges is neither pessimistic nor naive. Human beings are indeed predisposed to tribalism, but this predisposition is not destiny. The same capacities that generate division—moral intuition, group cohesion, symbolic identification—can be redirected. The task is to cultivate environments in which these capacities support dialogue rather than suppress it. This involves institutional reforms, but also a transformation of norms: encouraging disagreement without demonization, criticism without exclusion, and conviction without certainty of absolute righteousness.

Ultimately, the possibility of a less divided world depends on a shift in how we understand both morality and disagreement. Morality is not a single axis but a multidimensional space. Disagreement is not a sign of failure but an inevitable consequence of pluralism. To live together in such a world requires more than tolerance; it requires an active engagement with difference. It requires the recognition that the “other” is not a deviation from truth but another expression of the human condition. In this recognition lies the only viable path beyond the illusion of us versus them.

*Haidt, J. (2012) The Righteous Mind: Why Good People Are Divided by Politics and Religion. New York: Pantheon Books.*

### ***The Embodied Mind: Meaning Beyond Symbols***

In *Ten Lectures on Cognitive Linguistics*, George Lakoff dismantles one of the most enduring assumptions of Western thought: that meaning is a detached relation between words and a pre-structured world. Classical semantics, inherited from Aristotle and formalized through modern logic, treats language as a mirror of reality—a system in which symbols correspond to objects, properties, and relations. Truth, within this model, is a matter of alignment: statements are true if they accurately map onto the world’s structure. Yet this elegant framework collapses when confronted with the actual operations of human thought. Language, as lived and used, does not behave like a logical calculus. It bends, blends, projects, and reconfigures experience in ways that cannot be reduced to set-theoretical relations. Sentences involving dreams, counterfactuals, or shifting identities expose this limitation. When one says, “I dreamt I was someone else,” the mind does not merely refer; it constructs a blended space in which identities overlap and perspectives merge. Such phenomena cannot be captured by a theory that assumes fixed entities and stable relations. They require a theory in which meaning is an activity, not a correspondence—a process rooted in cognition rather than abstraction. This is the point at which cognitive semantics emerges, not as a refinement of classical theory but as a reorientation. Meaning is no longer located in the external world alone, nor in language as an autonomous system, but in the interaction between body, brain, and environment.

The work of Paul Kay and Brent Berlin on color categories provides a decisive example. Across cultures, despite differences in vocabulary, certain color prototypes recur with remarkable consistency. This is not because the world dictates these categories, but because human physiology does. Color is not an inherent property of objects; it is the result of an interaction between light, sensory apparatus, and neural processing. Meaning, in this domain, is neither purely objective nor purely subjective. It is embodied. This principle extends beyond perception into categorization itself. The research of Eleanor Rosch reveals that human categories are not organized hierarchically according to logical necessity, but around what she calls basic-level categories. These are not the most abstract (“furniture”) nor the most specific (“rocking chair”), but the most experientially salient (“chair”). They correspond to how we perceive objects as wholes, how we interact with them, and how much information they provide. A chair is not simply an instance of a set; it is something we sit on, recognize immediately, and engage with bodily. Categorization, therefore, is not a matter of logical inclusion but of embodied relevance. Further evidence comes from the study of spatial relations, particularly in the work of Leonard Talmy. Concepts such as “in,” “on,” or “through” are not arbitrary linguistic conventions but reflections of recurring patterns of bodily experience—what cognitive linguistics calls image schemas. The container schema, for instance, arises from our experience of being in spaces, putting objects into containers, and moving through boundaries. These schemas are preconceptual structures that shape thought before language formalizes them. Yet their expression varies across cultures, as seen in languages that

map spatial relations onto body parts or other culturally specific domains. Universality and variation coexist because they emerge from the same source: embodied interaction filtered through cultural practice. The introduction of frames by Charles Fillmore further deepens this account. Meaning is not attached to isolated words but organized around structured scenarios—frames that include roles, relations, and sequences of action. A commercial transaction, for example, is not reducible to the word “buy” or “sell.” It involves a network of participants (buyer, seller), objects (goods), and exchanges (money), all embedded in a temporal sequence. Understanding such a concept requires access to the entire frame, not just its lexical components. Meaning, therefore, is inherently relational and contextual, grounded in recurrent patterns of experience.

The implications of this shift are profound. First, it dissolves the boundary between mind and world posited by classical semantics. Meaning is neither “out there” nor “in here” but arises from their interaction. Second, it redefines truth. If meaning depends on embodied cognition, then truth cannot be an absolute correspondence independent of human experience. It becomes a matter of fit within a conceptual system shaped by that experience. This does not eliminate constraint—physical and cultural realities still limit interpretation—but it relocates constraint within the dynamics of interaction rather than in an abstract external structure. Third, it reveals the centrality of metaphor. Abstract concepts are not understood directly but through mappings from more concrete domains. Time becomes a resource, arguments become wars, and understanding becomes seeing. These are not decorative linguistic devices but fundamental cognitive operations. They allow us to extend knowledge from familiar, embodied domains into abstract ones, making thought itself possible at higher levels of complexity. Finally, the computational work of Terry Regier demonstrates that these structures are not merely theoretical constructs but can be modeled as neural processes. Image schemas such as containment or orientation emerge from the interaction of neural circuits with sensory input, suggesting that meaning is literally instantiated in the brain’s architecture. The mind does not manipulate symbols detached from the body; it generates meaning through embodied computation.

What emerges from this perspective is a radically different image of language and thought. Language is not a transparent medium reflecting reality but an active system shaping it. Thought is not disembodied reasoning but embodied simulation. Meaning is not fixed but dynamic, not universal in the abstract but shared through common bodily and cultural experiences. In abandoning the myth of disembodied semantics, cognitive linguistics does not descend into relativism. Instead, it offers a more grounded realism—one that recognizes that all understanding is situated, but not arbitrary; constrained, but not absolute. It is within this interplay of body, brain, and world that meaning lives, evolves, and makes human thought possible.

*Lakoff, G. (2006) Ten Lectures on Cognitive Linguistics. Stanford: CSLI Publications.*

### ***The Geometry of Thought: From Essence to Prototype***

In *Ten Lectures on Cognitive Linguistics*, George Lakoff advances a decisive break with the Aristotelian legacy that has governed Western theories of meaning for millennia. The classical view, inherited from Aristotle, assumes that categories are defined by fixed essences—sets of necessary and sufficient features that determine membership with absolute clarity. A thing either belongs or it does not. Meaning, within this framework, is a matter of precise boundaries and stable definitions. Yet this apparent rigor dissolves when confronted with the actual behavior of human cognition. Real categories are not rigid containers but flexible, graded structures shaped by perception, use, and context. The very notion of a category as a sharply bounded set proves to be

an abstraction imposed upon a far more fluid reality. The emergence of graded categories marks the first rupture in this tradition. Concepts such as “tall,” “rich,” or “intelligent” resist binary classification. They admit degrees, not absolutes. One can be somewhat tall, very tall, or barely tall at all. This variability is not a defect of language but a reflection of how the mind organizes experience.

Categories are not defined by strict inclusion criteria but by gradients of applicability. This insight, developed empirically by Eleanor Rosch, introduces the concept of prototypes—central members of a category that serve as cognitive reference points. A sparrow is a better example of a bird than a penguin, not because it satisfies more essential features, but because it aligns more closely with the perceptual and functional patterns associated with “birdness.” Prototypes are not definitions; they are anchors of recognition. They reveal that categorization is not a logical operation but a perceptual and experiential one. This shift has profound consequences for reasoning itself. Inference does not proceed symmetrically across a category. It flows from the prototypical to the peripheral. If a disease affects sparrows, it is readily extended to ducks; the reverse inference feels less natural. Reasoning, therefore, is shaped by the internal structure of categories, not by abstract logical equivalence. The mind does not treat all members as equal; it privileges some as more representative, more informative, more cognitively accessible. This asymmetry exposes the inadequacy of models that treat categories as uniform sets. Thought is not governed by formal symmetry but by gradients of typicality. Beyond typicality, categories expand into more complex configurations. Ideal prototypes represent aspirational norms—the “ideal husband” or the “perfect citizen”—while nightmare prototypes embody cautionary extremes, such as the “lemon” in the domain of used cars. These variants demonstrate that categories are not merely descriptive but evaluative. They encode values, expectations, and fears. Meaning, in this sense, is not neutral. It is saturated with human purposes and judgments. The structure of a category reflects not only what things are, but what they matter for. The concept of radial categories further dismantles the classical model. A category like “mother” does not possess a single defining essence but radiates outward from a central case. The central model integrates multiple features—biological, social, and functional—while peripheral cases such as “adoptive mother” or “surrogate mother” instantiate only subsets of these features. There is no single criterion that unifies all cases. Instead, the category is held together by a network of overlapping similarities. This structure cannot be captured by a list of necessary and sufficient conditions. It requires a model in which meaning is distributed across a family of related instances. Categories, in this view, are not containers but constellations.

The role of context intensifies this complexity. Through frame semantics, introduced by Charles Fillmore, meaning is understood as embedded within structured scenarios. A concept is not an isolated unit but part of a larger frame that includes roles, relations, and expectations. Salient exemplars—such as a specific historical event—can come to dominate an entire category, shaping perception and judgment disproportionately. A single instance becomes a cognitive lens through which all similar events are interpreted. This phenomenon reveals that categorization is not only structured but historically and culturally contingent. Meaning evolves as experiences accumulate and crystallize into dominant exemplars. At the core of this entire framework lies metaphor. Contrary to the classical view that treats metaphor as ornamental language, cognitive semantics reveals it as a fundamental mechanism of thought. Concepts like LOVE IS A JOURNEY are not poetic embellishments but cognitive mappings that allow abstract domains to be understood through more concrete ones. The structure of a journey—paths, obstacles, destinations—provides a framework for reasoning about relationships. When one says, “We are at a crossroads,” one is not merely speaking figuratively; one is thinking through the logic of movement and direction.



Metaphor is not a deviation from literal meaning; it is the condition of possibility for meaning in abstract domains. These mappings are grounded in embodied experience. The metaphor ANGER IS HEAT arises from physiological correlations: increased body temperature, pressure, and tension accompany emotional states. Similarly, MORE IS UP emerges from the physical experience of accumulation, where adding substance raises a level. These correlations are not arbitrary; they are encoded in neural structures through repeated co-activation. As neural pathways strengthen, metaphors become entrenched, forming stable patterns of thought. The brain does not merely process metaphors; it is organized through them. The principle that “neurons that fire together wire together” transforms experience into conceptual structure. Cultural variation builds upon these embodied foundations. While primary metaphors arise universally from shared bodily experience, cultures combine them into more elaborate systems. Theories become buildings, arguments become wars, time becomes a commodity. These complex metaphors are layered constructions, integrating multiple primary mappings into coherent frameworks. They demonstrate that meaning is both universal and particular—rooted in shared embodiment but shaped by cultural elaboration. The result is a dynamic system in which basic cognitive patterns are extended, recombined, and refined across contexts.

The implications for semantics are transformative. The distinction between literal and metaphorical language collapses, as everyday speech is saturated with metaphorical structure. Expressions once considered figurative reveal themselves as fundamental to ordinary thought. Meaning is no longer a static relation between words and the world but a dynamic process grounded in perception, action, and neural organization. Categories are not fixed; they are flexible. Definitions are not absolute; they are contextual. Truth is not independent of cognition; it is mediated by it. In abandoning the myth of essence, cognitive semantics does not descend into chaos. It replaces rigid structure with patterned flexibility, formal logic with embodied coherence. Thought emerges not as a manipulation of abstract symbols but as a living system of interactions—between body and environment, perception and action, neural circuits and cultural forms. What Lakoff reveals is not the failure of reason, but its true foundation: a mind that thinks not in definitions, but in patterns, not in absolutes, but in gradients, not in isolation, but in relation.

*Lakoff, G. (2006) Ten Lectures on Cognitive Linguistics. Stanford: CSLI Publications.*

### ***The Architecture of Meaning: How Metaphors Build Reality***

In *Ten Lectures on Cognitive Linguistics*, George Lakoff demonstrates that metaphor is not an isolated linguistic device but an interconnected system through which thought itself is constructed. What appears as a collection of expressions—“spending time,” “moving forward,” “grasping an idea”—is in fact the visible surface of a deeper architecture. Beneath language lies a network of primary metaphors, grounded in bodily experience, which combine and recombine to produce complex conceptual systems. Meaning is not given; it is assembled.

One of the most revealing examples is the metaphor of time as a resource. Time is treated as if it were money—limited, valuable, and subject to management. We waste it, save it, invest it, or run out of it. This conceptualization does not arise from logical necessity but from specific historical and cultural conditions, particularly those tied to industrial labor and economic exchange. In societies where time is not measured, priced, or commodified, such expressions lose their coherence. This variation exposes a fundamental truth: metaphors are not universal structures imposed by reality, but cultural constructions anchored in lived experience. Yet even when culturally specific, they operate with the force of necessity within their domains, shaping

perception as if they were natural facts. The system deepens when we turn to events. States are conceptualized as bounded regions in space. To be in a condition—whether emotional, physical, or social—is to occupy a location. One is in trouble, in love, in pain, or in control. Change, accordingly, becomes movement between regions. To improve is to move forward or upward; to decline is to fall or slide back. These mappings are not arbitrary. They arise from the body's constant negotiation of space—entering, leaving, approaching, and withdrawing. The logic of spatial orientation becomes the grammar of experience.

Causation extends this system through the metaphor of force. To cause something is to exert pressure, to push, pull, or throw. Abstract transformations are rendered intelligible through physical dynamics. A crisis throws someone into despair; a mentor pulls someone out of confusion; a leader brings a nation to prosperity. Each verb carries a distinct profile of force—abrupt, gradual, directional—and these profiles structure how causation is understood. The diversity of causal reasoning is thus rooted in the diversity of bodily interactions with force and motion. From these primary mappings emerges a larger structure: the event structure metaphor. Actions become self-propelled movements toward goals; purposes become destinations; difficulties become obstacles; success becomes arrival. Life itself unfolds as a trajectory. We take steps, follow paths, reach milestones, or lose our way. This metaphor is so pervasive that it disappears into common sense. Yet it is not a neutral description of reality—it is a projection that organizes reality according to patterns of movement. To act is to travel; to fail is to be diverted; to succeed is to arrive.

Within this framework, even freedom is spatialized. To be free is to move without constraint; to be oppressed is to be trapped, chained, or confined. The language of liberation is the language of motion. Similarly, existence is mapped onto presence: birth is arrival, death is departure, and life is the condition of being here. These mappings reveal how abstract concepts—freedom, existence, purpose—are grounded in the most basic experiences of orientation and movement. Thought does not transcend the body; it extends it. The metaphorical structure of thought becomes even more evident when the mind turns upon itself. Thinking is not conceived as a purely internal or immaterial process but as an activity distributed across multiple experiential domains. It is movement: one gets stuck, moves forward, or reaches conclusions. It is perception: one sees a point, sheds light on an issue, or gains insight. It is manipulation: ideas are grasped, broken down, or assembled. It is consumption: thoughts are digested, swallowed, or rejected. It is calculation: arguments add up, problems are worked out, risks are measured. And it is machinery: the mind runs, stalls, or breaks down. Each metaphor captures a different facet of cognition, and together they form a composite model of thinking. There is no single essence of thought—only a network of mappings that render it intelligible.

What unites these diverse metaphors is their origin in embodied experience. The body provides the template: movement through space, interaction with objects, perception of light, ingestion of food, operation of tools. These experiences are not merely analogies; they are the foundation upon which abstract reasoning is built. Neural processes reinforce these mappings through repeated correlations. When physical accumulation consistently raises a level, the brain encodes the association MORE IS UP. When emotional intensity coincides with heat, ANGER IS HEAT becomes entrenched. The structure of metaphor is thus inscribed in neural circuitry. Cultural elaboration transforms these primary metaphors into more complex systems. A theory becomes a building, requiring foundations, support, and structural integrity. An argument becomes a war, involving attack, defense, and victory. These composite metaphors integrate multiple primary mappings into coherent frameworks, enabling sophisticated reasoning within familiar domains.

They are not decorative extensions but operational systems that guide inference, evaluation, and decision-making.

Poetic language reveals this structure in its most concentrated form. In Sonnet 73 by William Shakespeare, life is mapped simultaneously onto a year, a day, and a fire. Each metaphor draws on cycles of intensity and decline—autumn following summer, twilight following day, embers following flame. These mappings converge to produce a unified vision of aging as diminishing vitality. Poetry does not invent new structures *ex nihilo*; it recombines existing metaphors into resonant constellations, intensifying their experiential force. The cumulative effect of these observations is a radical redefinition of meaning. Language does not mirror a pre-given world structured by objective categories. Instead, it reflects a world organized through metaphorical projection. Concepts are not fixed entities but dynamic constructions, shaped by bodily experience, cultural practice, and neural organization. The boundary between literal and figurative dissolves, revealing that what we call “literal meaning” is itself the product of deeply entrenched metaphors.

In this light, thought appears not as a system of abstract symbols manipulated according to formal rules, but as an evolving architecture of mappings—flexible, layered, and context-dependent. Metaphor is not an ornament of language; it is the condition of intelligibility. To understand the world is to inhabit a structure of metaphors so familiar that it becomes invisible. And to reveal that structure is to recognize that reality, as we know it, is not simply perceived—it is continuously constructed.

*Lakoff, G. (2006) Ten Lectures on Cognitive Linguistics. Stanford: CSLI Publications.*

### ***The Gesture of Grammar: How Constructions Think for Us***

In *Ten Lectures on Cognitive Linguistics*, George Lakoff reveals that grammar is not a cold system of abstract rules but a living architecture of meaning, where every construction is a compact act of thought. The sentence “There’s John” appears trivial, almost invisible in its familiarity, yet it embodies a profound principle: language does not merely describe reality—it performs it. This utterance is not a statement about existence, nor a proposition to be evaluated as true or false; it is an act of pointing, a linguistic gesture that brings something into shared attention. Grammar here becomes deixis embodied, a coordination of perception, space, and social awareness.

This construction resists the operations typical of propositional language. It cannot be negated, questioned, or embedded because its meaning is inseparable from immediacy. One cannot doubt a gesture of pointing without dissolving the act itself. The phrase does not describe a world independent of the speaker; it creates a moment of joint perception. In this sense, grammar reveals its origin in interaction rather than abstraction. It is not a mirror of logic but an extension of the body—of seeing, indicating, and sharing presence. What appears syntactically simple is in fact structurally dense. The construction binds together location, identification, and attention into a single unit. “There” establishes a spatial frame, “John” fills it with a figure, and the copular form signals presence. Yet these elements do not function independently; they are fused into a holistic pattern that cannot be decomposed without losing its meaning. This fusion is what cognitive linguistics calls a construction: a pairing of form and meaning so tightly integrated that neither can be understood in isolation. Grammar, then, is not assembled from rules applied to words, but from these pre-structured pairings that already contain both syntax and semantics.

From this core gesture, language expands through variation. The same construction extends beyond visible objects to sounds, actions, and even discourse itself. “There’s the beep” transforms

an auditory event into a locatable object. “There he goes meditating again” reimagines repeated behavior as motion along a path. “Here’s your soup” reframes delivery as presentation within a shared space. Each variation preserves the underlying structure—pointing out something as present—while shifting the domain of application. The world is reconfigured through metaphorical projection: activities become movements, sounds become objects, and events become things that can be located and indicated. These extensions reveal that constructions are not static templates but generative schemas. They operate by minimal transformation, adjusting one condition while preserving the rest. The expressive power of language lies not in inventing entirely new forms, but in reusing existing ones with slight modifications. Meaning evolves through variation within constraint, not through arbitrary creation. Grammar is thus both stable and flexible, anchored in embodied patterns yet open to reinterpretation.

A particularly illuminating contrast emerges between the deictic and existential uses of “there.” In “There is a fly on the wall,” the construction no longer points to something immediately present but asserts existence within a conceptual space. The stress shifts, the immediacy fades, and the construction becomes compatible with negation and questioning. This transformation suggests that the existential form is not a separate structure but a derivative of the deictic one. By relaxing the requirement of direct perception and introducing the notion of existence, the construction moves from gesture to assertion. The evolution from pointing to stating mirrors a deeper cognitive shift: from shared perception to abstract reasoning. Yet even in its existential form, the construction retains traces of its origin. Existence is still conceptualized spatially, as if to exist were to occupy a location. The fly is not merely said to be; it is placed “on the wall,” embedded within a spatial schema. This persistence of spatial grounding reveals the continuity between perception and abstraction. Even the most seemingly abstract grammatical forms remain anchored in embodied experience.

Further variations extend the construction into narrative and discourse. “Once upon a time, there lived an old man” situates existence within a temporal frame, transforming the act of pointing into the act of storytelling. “There’s always Harry” invokes memory and expectation, locating a person within a conceptual landscape of possibilities. These uses demonstrate that constructions can operate across domains—perceptual, temporal, social—while maintaining their structural identity. Grammar becomes a network of interconnected schemas, each capable of bridging different aspects of experience. From a cognitive perspective, this network reflects the organization of the mind itself. Constructions are not stored as abstract rules but as patterns of neural activation linking meaning and form. When a speaker uses a construction, they activate a circuit that coordinates semantic content with phonological expression. Variations arise through slight modifications of these circuits, allowing new meanings to emerge without disrupting the underlying structure. Language is thus a dynamic system of patterned activations, where stability and change coexist.

This view challenges traditional models of grammar that treat syntax as an autonomous system governed by formal rules. Instead, syntax emerges from the interaction of meaning and form, shaped by the constraints of perception, action, and cognition. The distinction between grammar and semantics dissolves, revealing a unified system where every grammatical pattern carries conceptual content. To speak is not to apply rules but to enact constructions that embody ways of understanding the world. In this light, grammar appears not as a rigid framework imposed on thought, but as a repertoire of cognitive gestures—ways of structuring experience that have become conventionalized in language. Each construction is a micro-theory of reality, a way of organizing perception, attention, and meaning. The sentence “There’s John” is not merely a

linguistic form; it is a model of how humans share the world with one another. It captures the moment when perception becomes communication, when seeing becomes saying.

Ultimately, the study of constructions reveals that grammar is an extension of cognition, rooted in the body yet capable of abstraction. It is through these structured pairings of form and meaning that humans transform immediate experience into shared understanding. Language does not simply encode thought; it shapes it, guides it, and makes it possible. In every construction, we find not just a pattern of words, but a pattern of mind.

*Lakoff, G. (2006) Ten Lectures on Cognitive Linguistics. Stanford: CSLI Publications.*

### ***The Body of Thought: How Philosophy Emerges from Metaphor***

In *Ten Lectures on Cognitive Linguistics*, George Lakoff argues that philosophy has never been the purely abstract, disembodied discipline it claims to be. Instead, it is rooted in the same cognitive mechanisms that structure everyday thought—image schemas, prototypes, frames, and above all, conceptual metaphors. What philosophers have long treated as eternal truths are, in fact, projections of embodied experience, stabilized into systems of reasoning and mistaken for objective reality.

Conceptual metaphor, as cognitive linguistics demonstrates, is not a feature of language but of thought itself. Language merely reveals what cognition has already structured. When we say the future lies ahead and the past behind, we are not speaking figuratively in a decorative sense; we are thinking spatially about time. The metaphor is not optional—it is constitutive. In many modern societies, time is further conceptualized as a resource, something that can be spent, wasted, or invested. This mapping reflects specific historical conditions, yet once established, it organizes reasoning with the force of necessity. The implication is radical: what counts as truth is inseparable from the conceptual systems through which it is understood. This insight directly challenges the foundations of Anglo-American analytic philosophy, particularly its reliance on the correspondence theory of truth. According to that tradition, meaning arises from a relationship between language and an objective, pre-structured world. Cognitive linguistics undermines this assumption by showing that the structures through which we perceive and describe the world are themselves products of human cognition. Truth is not a mirror of reality independent of us; it is a fit within a system of understanding shaped by embodiment. Even the most formal logical systems presuppose conceptual structures grounded in bodily experience.

In response to this challenge, Lakoff and Mark Johnson propose a new philosophical framework: embodied realism. This approach rejects both naive objectivism and radical subjectivism. It affirms that there is a real world independent of human beings, but insists that our access to it is always mediated by embodied conceptual systems. Meaning arises from neural processes shaped by sensory and motor experience. For example, the metaphor affection is warmth is grounded in early bodily interactions, where physical warmth accompanies care and security. Over time, neural correlations stabilize this mapping, allowing it to structure abstract reasoning about relationships. Philosophy, in this view, must be grounded not in disembodied logic but in the biology of cognition. The scope of metaphor extends across all major philosophical domains. In morality, concepts such as strength, purity, and balance derive from bodily experience. Moral strength evokes resistance against force; moral purity draws on experiences of cleanliness and contamination. These are not superficial analogies but foundational schemas that shape ethical reasoning. Similarly, causation is not a single, uniform relation but a family of metaphorical models derived from physical interaction. We understand causes as pushes, pulls, or forces because

these are the primary ways we experience change in the world. The diversity of causal language reflects the diversity of embodied experience, not a set of fixed external relations.

When viewed through this lens, the philosophical canon appears in a new light. Each major thinker can be understood as operating within a system of metaphors that are rarely made explicit. Plato conceptualizes reality through the metaphor of essence as ideal form, treating “the good” as a source that radiates truth and existence. Aristotle reverses this mapping, locating essence within the objects themselves, yet still relying on the metaphor of grasping or perceiving essences. René Descartes builds his epistemology on the metaphor knowing is seeing, where clarity and distinctness become visual criteria for truth. Immanuel Kant frames morality through a structure resembling disciplined authority, where reason governs desire. Even analytic philosophy, which claims to eliminate metaphor, depends on models such as the mind as a machine or thought as object manipulation. The paradox is clear: the more philosophy denies metaphor, the more deeply it relies on it. To construct a new philosophical framework, one must therefore begin not with abstract principles but with the analysis of conceptual systems. Time, causation, morality, and mind are not fixed categories waiting to be described; they are domains structured by metaphorical mappings that can be studied, compared, and revised. Cognitive linguistics provides the tools for this task, revealing how different metaphors highlight certain aspects of experience while concealing others. A philosophy grounded in embodied realism does not claim absolute truth but seeks coherence within the constraints of human cognition and the realities of the world we inhabit.

The consequence of this shift is transformative. Philosophy is no longer the search for disembodied, universal truths but an inquiry into the structures of understanding that make such truths conceivable. It becomes an empirical discipline, informed by neuroscience, psychology, and linguistics, rather than an isolated realm of pure reason. The recognition that thought is metaphorical does not weaken philosophy; it situates it within the broader study of the human mind, where meaning, truth, and reason are seen as emergent properties of embodied experience. In this sense, philosophy is not above language or cognition but continuous with them. It is an extension of the same processes that allow us to navigate space, interact with objects, and communicate with others. The difference lies only in scale and abstraction. By uncovering the metaphors that underlie philosophical systems, we do not reduce them to illusion; we reveal the conditions of their possibility. Thought becomes visible as a structured activity, rooted in the body yet capable of reaching toward the most abstract domains of existence. And in that recognition, philosophy finds not its end, but its most grounded beginning.

*Lakoff, G. (2006) Ten Lectures on Cognitive Linguistics. Stanford: CSLI Publications.*

### ***The Grammar of Power: How Frames Govern Political Reality***

In *Ten Lectures on Cognitive Linguistics*, George Lakoff demonstrates that political life is not governed primarily by facts, policies, or rational deliberation, but by the invisible structures of thought known as frames. These frames are not rhetorical ornaments added to political discourse; they are the deep cognitive patterns through which citizens perceive reality itself. What appears to be a disagreement over policies is, at its core, a conflict between competing systems of meaning. Politics, therefore, is not merely a contest of interests—it is a contest of conceptual worlds.

The contemporary American political landscape offers a striking illustration of this phenomenon. The apparent symmetry between conservatives and progressives conceals a profound asymmetry in cognitive strategy. Over decades, conservative movements have invested not only in institutions—media networks, think tanks, and training programs—but in the systematic

construction of frames that define public discourse. These frames do not simply describe issues; they prestructure them. By the time a debate begins, its outcome is already constrained by the conceptual terrain on which it is fought. The notion of framing reveals that language operates at a level deeper than conscious argument. When a policy is described as “tax relief,” the term does more than label an economic measure. It activates an entire narrative structure: taxes are a burden, an affliction; those who reduce them are heroes; those who oppose relief are villains. This structure is not evaluated logically—it is felt intuitively. Even those who disagree with the policy may find themselves trapped within its conceptual logic, because to negate the frame is to reinforce it. Language, in this sense, does not merely communicate ideas; it activates neural circuits that shape perception before reasoning can intervene.

This dynamic exposes a critical vulnerability in progressive discourse, often described as *hypocognition*—the absence of readily available frames to articulate certain ideas. Where conservatives deploy concise, emotionally resonant structures, progressives frequently rely on detailed explanations and policy arguments that fail to engage the underlying cognitive patterns of their audience. The imbalance is not one of intelligence or information but of conceptual organization. Without frames, ideas remain inert; they lack the structure necessary to become persuasive or even thinkable within public discourse. At the heart of these competing frames lie divergent moral systems, each rooted in a metaphor of the family. The conservative worldview is structured by the strict father model, in which authority, discipline, and self-reliance are paramount. The world is seen as dangerous, requiring strength and moral clarity. Success is the reward for discipline; failure reflects a lack of it. This moral logic extends seamlessly into political positions: limited government, strong defense, and skepticism toward social programs. The coherence of this system lies in its internal consistency; each policy follows naturally from its underlying metaphor.

In contrast, the progressive worldview is organized around the nurturant parent model, emphasizing empathy, care, and mutual responsibility. The world is not inherently hostile but improvable through cooperation and support. Moral action involves fostering well-being and reducing harm, not enforcing discipline. This framework underpins policies aimed at social welfare, environmental protection, and equality of opportunity. Yet its articulation often falters, not because it lacks coherence, but because it lacks the concise framing that would render its coherence immediately visible. These moral metaphors are not abstract theories imposed from above; they are embodied structures arising from everyday experience. The family, as a primary site of human interaction, provides the schema through which larger social systems are understood. The nation becomes a family; leaders become parental figures; citizens become children or siblings. Through this mapping, complex political realities are rendered intelligible. But this intelligibility comes at a cost: it simplifies, highlights certain aspects, and obscures others. Each moral system reveals a world while simultaneously concealing alternative possibilities.

Strategic framing extends beyond individual policies to shape entire political agendas. Terms like “tort reform” exemplify how language can redefine complex legal and economic issues within a moral narrative of fairness and protection. The frame suggests that lawsuits are excessive and unjust, positioning reform as a corrective measure. Yet this framing obscures the redistribution of power it entails, shielding corporations while limiting recourse for individuals. The success of such frames lies not in their factual accuracy but in their alignment with preexisting moral structures. The implications of cognitive linguistics for politics are therefore profound. Political success depends not on the accumulation of facts but on the ability to activate frames that resonate with deeply embedded cognitive patterns. This does not imply manipulation in a cynical sense; rather,

it reflects the fundamental nature of human cognition. People do not reason from first principles; they reason within frameworks that define what counts as a principle in the first place. To change minds is not to present new facts, but to reshape the frames through which facts are understood.

This perspective also reframes the nature of political conflict. Disagreement is not simply a clash of opinions but a clash of conceptual systems, each with its own internal logic and moral coherence. Attempts to resolve such conflicts through rational argument alone are bound to fail, because they do not address the underlying structures that generate those arguments. Constructive political engagement requires an awareness of these structures and a willingness to engage them at their own level. Ultimately, cognitive linguistics reveals that democracy itself is a linguistic and cognitive phenomenon. The health of a political system depends on the diversity and vitality of the frames through which its citizens understand their world. When one set of frames dominates, it shapes not only policy outcomes but the very horizon of political imagination. To reclaim that horizon is not merely a matter of persuasion, but of rethinking the conceptual foundations of public life. In this sense, the study of language becomes inseparable from the study of power, and the analysis of grammar becomes an analysis of governance itself.

*Lakoff, G. (2006) Ten Lectures on Cognitive Linguistics. Stanford: CSLI Publications.*

### ***The Silent Dialogue: How Inner Speech Shapes Thought Across Languages***

In *Thinking Words in a Second Language*, María C.M. de Guerrero examines inner speech not as a secondary reflection of thought, but as one of its primary conditions. What appears to be a private, silent phenomenon—the voice inside the mind—is in fact a deeply social and historically shaped process. Inner speech is not merely language turned inward; it is the space where thought and language become inseparable, where cognition takes form through dialogue, even in the absence of sound.

The philosophical roots of this idea extend back to Plato, who conceived thinking as a silent conversation of the soul with itself. In this view, the mind does not operate through abstract symbols detached from language but through an internalized dialogue structured like speech. Yet Plato maintained a distinction between pure ideas and their linguistic expression, leaving unresolved the tension between thought and language—a tension that would define centuries of inquiry. Modern debates intensified this divide. Behaviorist traditions reduced thought to subvocal speech, treating inner speech as little more than suppressed articulation. In contrast, other schools rejected any linguistic basis for thinking, positing a purely abstract, non-verbal cognition. These opposing extremes—thought as language versus thought without language—failed to capture the dynamic interplay between the two. The emergence of the concept of inner speech marked an attempt to move beyond this dichotomy, recognizing that thought is neither reducible to language nor independent of it, but constituted through its interaction with linguistic processes.

The decisive transformation of this field came with Lev Vygotsky, who reconceptualized inner speech as a distinct psychological function. For Vygotsky, inner speech is not simply external speech internalized; it is a qualitatively different form of language, condensed, fragmented, and oriented toward meaning rather than full articulation. In this domain, words do not follow the linear structure of spoken language but operate as dense clusters of sense, where entire propositions may be compressed into a single lexical unit. Thought does not precede language, nor does language merely express thought; rather, thought realizes itself in language. Inner speech is the site of this realization. Vygotsky's sociocultural perspective further situates inner speech within a broader framework of human activity. Language originates in social interaction, and through processes of



internalization, it becomes the medium of individual thought. What begins as dialogue between people becomes dialogue within the self. Inner speech thus retains its fundamentally social character even in its most private form. It is not an isolated cognitive tool but a product of cultural and historical development, shaped by the linguistic environment in which the individual participates.

This insight becomes particularly significant in the context of second-language acquisition. The emergence of inner speech in a second language reveals the plasticity of the cognitive system. Initially, the learner's inner speech is dominated by the first language, which provides the semantic and conceptual framework for thought. The second language enters as an external tool, used consciously and effortfully. Over time, however, as proficiency increases and immersion deepens, a shift may occur: the second language begins to function internally, giving rise to an L2 inner voice. This transformation marks a profound cognitive reorganization, where new linguistic structures become integrated into the very processes of thinking. Yet this transition is neither uniform nor complete. Even advanced learners often retain traces of their first language within their inner speech, reflecting the layered nature of bilingual cognition. Thought becomes a hybrid space, where multiple linguistic systems interact, compete, and cooperate. Inner speech, in this context, is not a stable entity but a dynamic mediator, adapting to the demands of communication, memory, and problem-solving. It enables mental rehearsal, supports self-regulation, and facilitates the construction of meaning across linguistic boundaries.

The study of inner speech has long been hindered by its elusive nature. As a covert phenomenon, it resists direct observation, forcing researchers to rely on indirect methods. Early approaches depended on introspection, often criticized for its subjectivity. The cognitive revolution reinstated introspection as a legitimate tool, complemented by experimental and developmental studies. More recently, advances in neuroimaging have opened new avenues, allowing scientists to observe the neural correlates of inner speech. Techniques such as PET and MRI reveal patterns of brain activity associated with silent verbalization, providing empirical grounding for theories that once relied solely on philosophical speculation. Despite these advances, inner speech remains a complex and multifaceted phenomenon, resisting reduction to any single explanatory model. It encompasses a range of processes—verbal thought, self-talk, mental rehearsal—each reflecting different aspects of the relationship between language and cognition. The distinction between private speech and inner speech, for example, highlights the transitional nature of internalization, where overt, self-directed speech gradually becomes silent and internal. These distinctions are not merely terminological; they reflect different stages and functions within the broader system of verbal thought.

Ultimately, the study of inner speech reveals that thinking is not a purely abstract operation detached from language, nor is language a mere tool applied to pre-existing ideas. Instead, thought emerges within the medium of language, shaped by its structures and possibilities. In bilingual contexts, this emergence becomes even more complex, as multiple linguistic systems contribute to the formation of inner dialogue. The mind becomes a site of linguistic plurality, where meaning is negotiated across languages. Inner speech, then, is not simply the voice we hear in silence. It is the process through which the mind organizes experience, constructs meaning, and navigates the world. It is both individual and social, both embodied and abstract, both stable and fluid. By examining its structure and development, we gain insight not only into language learning but into the very nature of human thought.

*de Guerrero, M.C.M. (2005) Thinking Words in a Second Language: An Introduction to Inner Speech. Clevedon: Multilingual Matters.*

***The Social Genesis of Thought: How Mind Emerges from Interaction***

In *Thinking Words in a Second Language*, María C.M. de Guerrero develops her account of inner speech upon the foundations of sociocultural theory, a framework that radically redefines the nature of mind, language, and learning. At its core lies a simple yet transformative claim: the mind is not an isolated entity but a social formation, and consciousness itself is shaped through participation in historically situated practices. Thought does not originate in solitude; it is born in interaction.

This perspective finds its origin in the work of Lev Vygotsky, whose cultural-historical psychology overturned the traditional view of cognition as an internal, self-contained process. Vygotsky proposed that higher mental functions—attention, memory, reasoning—are not innate structures unfolding independently within the individual, but products of social life. They arise first between people and only later within the individual. This principle, often described as the law of general development, reveals that what we call “thinking” is, in its genesis, a form of dialogue. The process through which this transformation occurs is known as internalization. Yet internalization is not a simple transfer of external activity into an inner domain. It is a reconstruction, a reorganization that gives rise to a new psychological plane. What begins as shared activity becomes individualized function, but in a transformed and condensed form. The external world is not copied into the mind; it is reconstituted within it.

Language provides the clearest illustration of this process. A child’s earliest speech is social, directed toward others and embedded in communicative interaction. Gradually, this speech becomes egocentric—still vocalized, yet oriented toward the self, serving functions of planning and regulation. Eventually, it becomes inner speech: silent, abbreviated, and semantically dense. In this final form, speech no longer follows the linear clarity of external communication but operates through compressed meanings, where entire chains of thought may be contained within a single word or fragment. Inner speech thus carries within it the traces of its social origin while functioning as the medium of individual cognition. This transformation was further elaborated by Alexei Leontiev, who emphasized that internalization involves qualitative change rather than mere relocation. External actions, once internalized, become reorganized into mental operations with new properties and capacities. Importantly, this process remains reversible: under conditions of difficulty or uncertainty, internal processes may re-externalize, appearing again as overt speech or deliberate action. Thought is therefore not confined to a fixed internal space but moves fluidly between inner and outer forms.

The notion of appropriation adds another dimension to this account. To internalize a cultural tool—such as language—is not simply to adopt it, but to make it one’s own. This process is often marked by tension, resistance, and transformation, especially in contexts like second-language learning, where the individual must negotiate between existing cognitive structures and new linguistic forms. Inner speech becomes the arena in which this negotiation unfolds, mediating between inherited systems of meaning and newly acquired ones. Central to sociocultural theory is the concept of mediation. Human cognition does not operate directly upon the world but through tools—both material and symbolic. Language, gestures, diagrams, and other sign systems serve as mediational means, shaping how individuals perceive, remember, and act. These tools are not neutral; they carry the imprint of the cultures that produce them. To think, therefore, is always to think through culturally specific forms. The universality of cognition lies not in identical structures but in the shared capacity to be mediated by tools.

The biological substrate of the brain remains essential, yet it is through cultural mediation that biological capacities are transformed into higher mental functions. Research by Alexander Luria demonstrated how neurological processes are reorganized through the use of symbolic tools, revealing that the brain itself is shaped by cultural activity. Cognition, in this sense, is neither purely biological nor purely social, but an emergent property of their interaction. To understand such processes, sociocultural theory adopts a genetic approach, focusing on development rather than static description. Mental functions must be studied in their formation, tracing their evolution across time. Ontogenetic analysis examines the development of the individual, while microgenetic analysis captures the moment-to-moment emergence of cognitive processes. This dual perspective reveals that thought is not a fixed structure but a dynamic process, continually shaped by interaction and context.

Complementing this framework, activity theory extends the analysis to the broader organization of human action. Developed within the Vygotskian tradition, it distinguishes between activity, actions, and operations. Activity is driven by motives, actions are directed toward goals, and operations are shaped by conditions and tools. This layered structure situates cognition within purposeful engagement with the world. Thinking is not an abstract exercise but part of an activity system, oriented toward achieving meaningful ends. In the context of second-language learning, this perspective proves especially illuminating. Learners are not passive recipients of linguistic input but active agents, whose cognitive processes are shaped by their goals, motivations, and social environments. Inner speech becomes a crucial mediational tool, enabling learners to regulate their actions, rehearse linguistic forms, and integrate new meanings. The emergence of inner speech in a second language reflects the gradual reorganization of the cognitive system, as new tools are appropriated and internalized.

What sociocultural theory ultimately reveals is that the mind is not a pre-given entity but a historical achievement. It is formed through participation in cultural practices, mediated by symbolic tools, and continuously reshaped through activity. Inner speech, far from being a private monologue, is the internal echo of social life—a dialogue transformed, condensed, and made the foundation of thought itself.

*de Guerrero, M.C.M. (2005) Thinking Words in a Second Language: An Introduction to Inner Speech. Clevedon: Multilingual Matters.*

### ***The Silent Architecture of Thought: Inner Speech and the Formation of Meaning***

In *Thinking Words in a Second Language*, María C.M. de Guerrero maps the intricate conceptual terrain surrounding inner speech, revealing it not as a single phenomenon but as a constellation of interrelated processes through which language and thought converge. These terms—often treated as interchangeable—mark distinct positions within the transformation of speech into cognition, and together they expose the hidden architecture of thinking itself.

At the center stands verbal thought, the point at which language ceases to be merely communicative and becomes constitutive of thinking. In the tradition of Lev Vygotsky, verbal thought is not the fusion of identical elements but the dynamic union of two originally separate domains: speech and thought. Inner speech serves as the medium of this union. It compresses, restructures, and organizes meaning, allowing thought to assume a symbolic form while freeing language from its external communicative constraints. What emerges is not speech without sound, but a new cognitive formation—thought articulated through meanings rather than words. Closely related is the notion of thinking in a language, a phrase that captures the subjective experience of

thoughts appearing as linguistic sequences. Yet this experience conceals a deeper process. To think in a language—especially in a second language—is not merely to replace one set of words with another. It signals the internalization of a linguistic system as a cognitive tool. The transition from translating between languages to directly formulating thought within the second language marks a structural reorganization of cognition. Language here becomes not a vehicle but a medium of reasoning itself.

This distinction becomes clearer when contrasted with the concept of a language of thought, as proposed by Jerry Fodor. His idea of an innate mentalese posits a pre-linguistic code underlying all cognition. Against this, the notion of language for thought emphasizes the social and cultural origins of thinking. Language is not an inborn symbolic system but an acquired tool, appropriated through interaction and transformed into inner speech. Thought, in this view, is not prior to language but shaped by it, structured through its categories and meanings. Within this framework, inner speech appears as a form of intrapersonal communication—a dialogue turned inward. What was once external exchange becomes internal coordination. Yet this inward turn does not eliminate its dialogic nature. Even in silence, inner speech retains the structure of conversation: questioning, answering, anticipating. It is not a monologue but a compressed dialogue, where multiple perspectives are negotiated within a single mind. Self-talk represents a more explicit manifestation of this process. Unlike the condensed and often fragmentary nature of inner speech, self-talk unfolds in more complete syntactic forms, sustaining an internal conversation that mirrors external discourse. It is here that thought becomes most visible to itself, taking on a reflective and deliberate character. Through self-talk, individuals plan, evaluate, and regulate their actions, transforming language into an instrument of self-governance.

From a physiological perspective, inner speech is also described as covert linguistic behavior. This term shifts the focus from phenomenology to mechanism, emphasizing that silent thought is not immaterial but grounded in bodily processes. Neuroimaging studies reveal the activation of speech-related brain regions during inner speech, suggesting that thinking recruits the same neural systems as speaking, though in attenuated form. The silence of inner speech is therefore not the absence of activity but its internalization. Mental rehearsal further illustrates the functional role of inner speech. Whether through simple repetition or elaborative restructuring, rehearsal allows language to stabilize memory, refine expression, and prepare action. In second-language learning, this process becomes especially significant, as learners use inner speech to practice forms, test hypotheses, and gradually integrate the new language into their cognitive system. Rehearsal thus acts as a bridge between external input and internal mastery. At an earlier developmental stage lies private speech, the audible precursor to inner speech. Here, language is already directed toward the self but remains externalized. Children speak aloud not to communicate with others but to guide their own actions, regulate attention, and solve problems. Over time, this overt self-guidance becomes internal, losing its vocal form while retaining its regulatory function. Private speech is therefore not a deviation from communication but a transitional phase in the emergence of thought.

Across these terms, a pattern becomes visible: the gradual transformation of language from social interaction into internal cognition. Each concept marks a stage or aspect of this transformation, from external dialogue to silent meaning. What unites them is the recognition that thinking is not an abstract, disembodied activity but a process mediated by language, shaped by culture, and grounded in the body. Inner speech, in this light, is not merely a phenomenon among others but the central mechanism through which human beings become capable of abstract, self-directed thought. It is the space where language ceases to belong to others and becomes one's own—where

meaning is no longer exchanged but generated. In this silent domain, the social world is not left behind but carried inward, forming the very substance of the thinking mind.

*de Guerrero, M.C.M. (2005) Thinking Words in a Second Language: An Introduction to Inner Speech. Clevedon: Multilingual Matters.*

### ***The Native Voice Within: Inner Speech as the Architecture of First Thought***

In *Thinking Words in a Second Language*, María C.M. de Guerrero turns to the most intimate domain of cognition: the silent language through which individuals think in their first language. This inner speech, so immediate and habitual that it often escapes reflection, reveals itself as one of the defining features of human consciousness. It is not merely the absence of sound, but the presence of a deeply structured linguistic medium through which thought becomes possible.

From the sociocultural perspective established by Lev Vygotsky, inner speech in the first language is not an innate mental faculty but a social achievement. It emerges from interaction, from the external dialogues that shape early development. Thought and speech, initially separate in their origins, gradually converge through a developmental trajectory that transforms communication into cognition. What begins as speech for others becomes speech for the self, and ultimately, speech within the self. This transformation unfolds through distinct stages. In early childhood, thought is prelinguistic and speech preintellectual; each follows its own path. Around the age of two, these paths intersect, initiating a process in which language begins to structure cognition. The child's speech remains primarily social, yet it starts to serve internal purposes. This intermediate stage—egocentric speech—marks a turning point: language is no longer directed solely outward but begins to regulate action and guide problem-solving. Over time, this audible self-guidance is internalized, giving rise to inner speech, a silent yet powerful instrument of thought. The functions of inner speech in the first language are both cognitive and regulatory. As a mediational tool, it allows individuals to organize experience, refine ideas, and construct meaning. Thought, which might otherwise remain diffuse and unformed, acquires structure through the symbolic system of language. At the same time, inner speech enables self-regulation. It supports planning, monitoring, and evaluation, transforming action from reactive behavior into deliberate activity. In this sense, inner speech is not only the medium of thinking but also the mechanism of control.

Yet inner speech is not simply external speech without sound. Its form differs radically from spoken language, reflecting its unique function. It is characterized by soundlessness, since it is directed inward rather than outward. Its syntax is abbreviated, often omitting subjects, verbs, and grammatical markers that would be necessary in communication with others. Most strikingly, its semantics are condensed. Words in inner speech do not carry their full dictionary meanings but operate through sense—personal, contextual, and dynamic. A single word may evoke an entire network of associations, experiences, and intentions. This condensation makes inner speech extraordinarily efficient. It allows thought to move rapidly, bypassing the linear constraints of external language. What would require extended explanation in speech can occur almost instantaneously in inner speech. In this compressed form, language approaches the immediacy of thought itself, becoming less a sequence of signs and more a field of meanings. The processes underlying inner speech further illuminate its role in cognition. Internalization transforms social speech into a private medium, reshaping its structure and function. Formulation organizes thought through this medium, giving abstract ideas a linguistic form that makes them manipulable. Externalization reverses the process, expanding inner speech into communicable language when

interaction demands it. These processes reveal that thought is not independent of language but continuously shaped by its transformation.

The work of Alexander Luria extends this account into the neurological domain. Luria demonstrated that inner speech is grounded in specific brain systems, particularly those associated with language production and regulation. Damage to these systems disrupts not only speech but also the capacity for organized thought, indicating that inner speech is not an optional feature of cognition but one of its structural foundations. The brain does not merely host inner speech; it is reorganized by it. Beyond its cognitive and neurological dimensions, inner speech also carries a dialogic structure. Drawing on the insights of Mikhail Bakhtin, later theorists have emphasized that inner speech retains the voices of social interaction. It is not a solitary monologue but an internalized dialogue, shaped by the multiple perspectives encountered in communication. Within inner speech, the self becomes both speaker and listener, engaging in a continuous exchange that reflects the social origins of thought. Cognitive and neuroscientific approaches complement this perspective by revealing the mechanisms through which inner speech operates. Models of cognition show how linguistic structures support memory, reasoning, and problem-solving, while brain imaging studies demonstrate the activation of language networks during silent thinking. These findings confirm that inner speech is not a metaphorical description but a measurable phenomenon, rooted in the activity of the brain and integrated with broader cognitive processes.

Understanding inner speech in the first language provides a foundation for exploring its role in second-language acquisition. The native inner voice represents a fully internalized system, characterized by efficiency, condensation, and immediacy. The challenge for the second-language learner is not merely to acquire vocabulary and grammar, but to reconstruct this internal system in a new linguistic medium. The emergence of inner speech in a second language marks a profound cognitive shift: the language ceases to be external and becomes a tool for thinking itself. Ultimately, inner speech in the first language reveals the deepest transformation in human development: the conversion of social interaction into individual consciousness. It is the silent medium through which the world is understood, actions are guided, and the self is formed. In this inner voice, shaped by culture yet experienced as personal, the boundary between language and thought dissolves. What remains is a unified process in which to think is already to speak—silently, internally, and with the full weight of a lifetime of meaning.

*de Guerrero, M.C.M. (2005) Thinking Words in a Second Language: An Introduction to Inner Speech. Clevedon: Multilingual Matters.*

### ***The Invisible Blueprint of Speech: Inner Programming and the Birth of Utterance***

In *Thinking Words in a Second Language*, María C.M. de Guerrero draws on the psycholinguistic model of Aleksei A. Leontiev to illuminate one of the most concealed yet decisive processes in human cognition: the silent planning that precedes every act of speech. If language appears to unfold seamlessly in external form, Leontiev's framework reveals that this apparent immediacy is the result of a complex inner architecture, where thought is gradually transformed into utterance through structured stages of development.

At the core of this model lies a fundamental division between planning and execution. Speech does not begin with words but with a motive—a disturbance, a need, or a tension within experience that demands resolution. This motive is not yet linguistic; it is pre-verbal, emerging from the organism's engagement with its environment. It is the pressure to respond, the impulse that sets the entire process in motion. From this motive arises a speech intention, the first step toward

articulation. Here, the diffuse need acquires direction. The mind does not yet select words, but it defines a goal: something must be said, clarified, or communicated. Intention is thus the bridge between raw experience and structured expression, marking the transition from impulse to form. It is within the next phase—inner programming—that inner speech assumes its decisive role. This stage constitutes the true workshop of language, where meaning is shaped before it is spoken. Inner speech does not operate with the full clarity of external language; it functions through a condensed, predicative code, organized around sense rather than explicit structure. Subjects may be omitted, relations implied, sequences compressed. What matters is not grammatical completeness but semantic coherence. Thought is organized here in a form that is intelligible to the self but not yet communicable to others.

This inner program acts as a blueprint for the utterance. It determines the conceptual structure, the relations between elements, and the direction of expression. Without this stage, speech would lack coherence, becoming a mere chain of disconnected words. Inner speech thus ensures that what is eventually spoken has already been silently constructed, tested, and refined within the mind. The transition from this internal blueprint to external language occurs in the post-programming stage. Here, subjective meanings—fluid, context-bound, and personal—must be translated into objective linguistic forms. This involves lexical selection and grammatical structuring, processes that impose the conventions of a shared language onto the individualized content of thought. Words are chosen, syntax arranged, and meanings stabilized into forms that others can understand. Finally, the process culminates in motor implementation, where the abstract structure of language becomes physical action. Speech is articulated through coordinated movements of the vocal apparatus, or written through the hand. At this point, the internal has become external, and the silent architecture of thought is realized in the material world.

What Leontiev's model makes evident is that speech is not a direct expression of thought but a mediated transformation. Inner speech is the crucial intermediary, the space where thought is shaped into a form that can be expressed. Without this mediating layer, the transition from cognition to communication would remain impossible. This framework gains additional complexity in the context of second-language production. Leontiev introduces a translating stage, where inner speech in the first language mediates the formation of utterances in the second. For the developing learner, thought is first organized within the familiar structures of the native language before being recoded into the foreign one. This intermediary step reveals that inner speech is not fixed but adaptive, capable of operating across linguistic systems while retaining its organizing function. As proficiency increases, this dependence on the first language diminishes. The second language begins to form its own inner speech, allowing thought to be structured directly within it. This transition marks a profound cognitive shift: the new language ceases to be an external code and becomes an internal medium of thinking. The learner no longer translates thought but thinks in the language itself.

Leontiev's model thus extends the insights of Lev Vygotsky by situating inner speech within a precise psycholinguistic process. It demonstrates that inner speech is not merely a byproduct of cognition but its organizing principle, the stage upon which thought is prepared for expression. Speech, in this view, is the final manifestation of a process that begins long before words appear. What emerges from this perspective is a redefinition of language itself. Language is not simply a system of signs used to communicate pre-formed ideas. It is a process, a transformation, a movement from motive to meaning, from intention to articulation. Inner speech is the silent engine of this movement, the invisible structure that makes speech possible. In every utterance, then, there is a hidden history—a sequence of internal events through which thought has been shaped,

organized, and prepared. To speak is to externalize this history, to give form to what has already been silently constructed. And in this sense, every word carries within it the trace of an unseen process, the echo of a thought that first existed without sound.

*de Guerrero, M.C.M. (2005) Thinking Words in a Second Language: An Introduction to Inner Speech. Clevedon: Multilingual Matters.*

### ***The Second Voice Within: How Thought Learns to Speak Again***

In *Thinking Words in a Second Language*, María C.M. de Guerrero confronts one of the most subtle transformations in human cognition: the emergence of inner speech in a second language. If the first language constitutes the native architecture of thought, the second language must construct itself within that already formed structure, negotiating, reshaping, and eventually reconfiguring the very medium of thinking. Inner speech becomes the site of this transformation—the space where a foreign system gradually becomes internal.

To ask what it means to “think in a second language” is to question the boundaries between language and thought themselves. The naïve assumption suggests that thinking in an L2 simply involves substituting one linguistic code for another. Yet, as Aleksei A. Leontiev argues, this view mistakes the nature of cognition. Thought is not independent of language, but neither is it reducible to it. Rather, language mediates thought in varying degrees, depending on how deeply it has been internalized. In early stages of acquisition, the second language remains external, requiring mediation through the first language. Thought is first structured in the native inner speech and only then translated into the new linguistic form. This translation stage reveals a fundamental asymmetry: the first language is not merely prior in time but foundational in structure. It provides the semantic and conceptual framework into which the second language must enter. As Tatiana Ushakova suggests, new linguistic elements are initially anchored in existing networks of meaning. Words in the second language are not learned in isolation; they are grafted onto the conceptual system already shaped by the first language. Inner speech in the L1 thus functions as a scaffold, supporting the early stages of L2 development while simultaneously constraining it. Yet this dependence is not permanent. Over time, a process of differentiation and integration unfolds. Learners begin to minimize reliance on translation, attempting to construct thought directly within the second language. This phase is marked by instability—moments of hesitation, hybrid forms, and oscillation between languages. Inner speech becomes a site of negotiation, where fragments of the L2 appear, initially disordered and external, but gradually gaining coherence.

The culmination of this process is described by Vera John-Steiner as integration: a state in which the boundaries between languages become permeable, and both systems contribute to a unified conceptual structure. At this stage, thinking in an L2 is no longer a matter of linguistic substitution but of cognitive reorganization. The learner can move between languages without reconstructing meaning from scratch, drawing instead on a shared reservoir of concepts. Inner speech, once dominated by the first language, becomes bilingual, capable of operating across systems while maintaining coherence. This transformation is neither uniform nor absolute. As Andrew D. Cohen observes, the language of inner speech often shifts depending on context, task, and emotional intensity. Advanced learners may think in the L2 in professional or academic contexts, yet revert to the L1 when confronting complex problems or deeply personal reflections. Inner speech remains dynamic, adapting to the demands of cognition rather than adhering to a fixed linguistic identity.

Within this dynamic system, inner speech performs multiple functions. In reading, it converts written symbols into meaningful verbal thought, allowing the learner to internalize the rhythm and



structure of the language. In writing, it acts as a planning mechanism, organizing ideas before they are externalized. In mental rehearsal, it becomes a tool for practice, enabling learners to repeat, manipulate, and refine linguistic forms in silence. This phenomenon, described by Stephen Krashen as the “din in the head,” reflects the persistence of language as an active cognitive process, even in the absence of external use. Mental rehearsal illustrates a crucial aspect of L2 inner speech: its role in bridging competence and performance. Through silent repetition and experimentation, learners internalize patterns that eventually become automatic. What begins as deliberate practice becomes spontaneous cognition. Inner speech thus functions as both workshop and training ground, where the second language is not only learned but lived internally. Neuroscientific research adds another dimension to this account. Brain imaging studies reveal that inner speech in a second language activates networks that overlap with, yet differ from, those used in the first language. This suggests that bilingual cognition is not simply a duplication of systems but a reconfiguration of neural processes. The coexistence of L1 and L2 within the brain reflects the coexistence of multiple modes of thought, each shaped by its linguistic medium.

What emerges from these perspectives is a view of second-language inner speech as a gradual re-inscription of thought itself. The learner does not merely acquire new words but develops a new way of organizing meaning. This process is neither linear nor complete; the first language remains present, influencing and interacting with the second. Yet the emergence of inner speech in the L2 marks a decisive threshold. The language ceases to be external and becomes internal, ceases to be translated and becomes thought. In this transformation, the unity of language and cognition is revealed with particular clarity. Inner speech is not simply the medium through which the second language is practiced; it is the medium through which it becomes real. To think in a second language is to inhabit it, to allow it to shape perception, reasoning, and intention. It is to acquire not only a new means of expression but a new dimension of thought. Thus, the study of inner speech in the L2 does more than illuminate language learning; it exposes the plasticity of the human mind. It shows that thought is not fixed within a single linguistic system but capable of reorganization, expansion, and transformation. In the silent dialogue of inner speech, the foreign becomes familiar, and the unfamiliar becomes a new form of self-understanding.

*de Guerrero, M.C.M. (2005) Thinking Words in a Second Language: An Introduction to Inner Speech. Clevedon: Multilingual Matters.*

### ***The Becoming of a Second Mind: Inner Speech as the Engine of Linguistic Transformation***

In *Thinking Words in a Second Language*, María C.M. de Guerrero synthesizes a fragmented yet revealing body of research to expose the central role of inner speech in second-language acquisition. What emerges from this synthesis is not a simple auxiliary function but a structural principle: inner speech is the mechanism through which a second language ceases to be external knowledge and becomes internal thought.

Across the studies reviewed, a consistent insight takes shape—inner speech is the medium of verbal thought in the second language. Yet the meaning of “thinking in an L2” resists simplification. It is not merely the encoding of pre-existing ideas into a foreign code, nor a preparatory stage before speaking. As Aleksei A. Leontiev and Vera John-Steiner emphasize, it is a process in which thought itself is formed through the second language. The language does not follow thought; it participates in its construction. This raises a crucial distinction between thinking in a language and thinking about a language. The learner who deliberately rehearses phrases may

engage with the L2, yet still rely on the conceptual structures of the first language. The threshold is crossed only when the second language begins to function as a direct medium of cognition, when meaning is no longer translated but generated within it. Even then, as Andrew D. Cohen observes, this state is unstable and context-dependent, shaped by proficiency, task demands, and the emotional weight of the thought itself. At the developmental level, inner speech in the L2 emerges through internalization, a process that mirrors the trajectory described by Lev Vygotsky. Before it becomes silent and fully internal, language appears as private speech—audible or subvocalized expressions directed toward the self. Here, the learner experiments with forms, rehearses structures, and negotiates meaning. This stage reveals the active nature of acquisition: language is not absorbed but constructed through use. Studies of beginner learners show a heavy reliance on repetition and recall, indicating that inner speech initially functions as a fragile and effortful tool.

As proficiency develops, inner speech expands its domain. In reading, it transforms written symbols into meaningful verbal thought, enabling comprehension beyond mere decoding. In writing, it becomes the planning space where ideas are organized before they are externalized. The findings of Alexander Sokolov demonstrate that inner speech facilitates not only understanding but also generalization and memory, revealing its role as a cognitive integrator. The act of reading in a second language thus becomes an internal dialogue, where meaning is actively constructed rather than passively received. Mental rehearsal further illuminates the dynamic character of inner speech. Whether through spontaneous repetition—the “din in the head” described by Stephen Krashen—or deliberate practice, learners engage in continuous internal manipulation of language. This rehearsal is not merely mechanical; it is creative. Through language play, as noted by James Lantolf, learners reconcile internalized systems with external models, testing possibilities and refining their linguistic competence. Interestingly, as proficiency increases, certain functions of rehearsal diminish while others intensify, suggesting that inner speech evolves rather than disappears. The neurological dimension adds further depth to this picture. Brain imaging studies reveal that inner speech in a second language engages both shared and distinct neural networks relative to the first language. Research by Cathy J. Price and others indicates that early bilinguals tend to recruit overlapping regions, while late learners initially rely on more segregated pathways. With increasing proficiency, these systems may converge, reflecting the gradual integration of the second language into the brain’s linguistic architecture. Inner speech thus has not only a psychological but also a neurological trajectory, shaped by age, experience, and mastery.

Taken together, these findings reveal inner speech as the central mediator of second-language cognition. It operates at every level: as the mechanism of verbal thought, the process of internalization, the tool of comprehension and production, the medium of rehearsal, and the locus of neural reorganization. Its development traces the transformation of the learner from a user of language to a thinker within it. What this synthesis ultimately suggests is that acquiring a second language is not simply an act of learning but an act of becoming. It involves the formation of a second inner voice, one that gradually acquires the capacity to think, to plan, and to understand. This voice does not replace the first but coexists with it, creating a layered and dynamic cognitive system. In this coexistence lies both the challenge and the richness of bilingual thought. The first language provides stability and depth, the second introduces flexibility and expansion. Inner speech becomes the site where these forces interact, where meanings are negotiated and redefined. To master a second language, then, is not merely to speak differently, but to think differently—to inhabit a new form of inner life.

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### **Conclusion: The Unstable Bridge: How Thought Outruns Language and Leaves Meaning Behind**

This concluding movement gathers the arguments developed across the material and pushes them to their logical endpoint: language is not the ground of cognition but a secondary, stabilizing device that inevitably distorts what it attempts to carry. What has been shown from multiple angles—through perceptual theory, cognitive linguistics, studies of inner speech, animal cognition, and social psychology—is that thought does not originate in words. Instead, it begins in structured, embodied, perceptual processes that language can only partially capture. The result is a persistent gap between what is thought and what is said, between cognition and communication—a gap that cannot be eliminated because it is built into the very nature of language itself.

At the foundation of cognition lies a perceptual field that is inherently multidimensional. The mind grasps relations as patterns in space and time—simultaneous configurations rather than ordered sequences. Visual structures, motor schemas, emotional gradients, and spatial relations form the primary medium of thought. These structures are rich, flexible, and dynamic. They allow for continuous variation, overlapping meanings, and context-sensitive interpretation. In contrast, language operates through discrete units arranged linearly. Words must follow one another; sentences must unfold step by step. This difference is not superficial—it is structural. When perceptual thought is translated into language, its simultaneity is dismantled and reassembled into sequence. Something is always lost in this process. This loss is not a failure of skill or intelligence but a consequence of the medium. Language cannot fully represent the multidimensional structures of thought because it is not designed to do so. It reduces, selects, and orders. It transforms relations into categories, processes into objects, and fields into chains. Even the simplest description imposes a hierarchy that may not exist in the original experience. Equality becomes sequence, interaction becomes causation, and coexistence becomes narration. The mind compensates for this reduction through inference, imagination, and reconstruction, but the gap remains.

The role of language, therefore, must be understood as auxiliary. Words do not generate thought; they stabilize it. They provide fixed points within a fluid cognitive field, allowing concepts to be preserved, manipulated, and communicated. Without such stabilization, thought would remain transient and difficult to coordinate socially. Language makes shared understanding possible, but it does so by imposing boundaries that do not naturally exist in perception. It divides continua into categories, assigns names to clusters of variation, and encourages consistency where experience may be ambiguous. This stabilizing function explains both the power and the danger of language. By fixing meanings, it enables precision, but it also encourages rigidity. Concepts that are fluid in perception become stereotyped when labeled. The word “triangle,” for example, evokes a stable form, even though actual triangles vary infinitely. Language privileges certain features while ignoring others, reinforcing particular ways of seeing the world. Over time, these linguistic distinctions shape cognitive habits, not by determining thought entirely, but by guiding attention and reinforcing patterns. The idea that language determines thought in a strict sense has been challenged throughout the material. Evidence from animal cognition shows that complex problem-solving, abstraction, and planning can occur without language. Chimpanzees use tools, anticipate outcomes, and reorganize their environment in ways that demonstrate genuine reasoning. These forms of thinking are grounded in perception and action, not in verbal representation. Similarly,

within human cognition, many operations—spatial reasoning, visual imagination, emotional appraisal—proceed independently of language. Words may accompany these processes, but they do not constitute them.

Even inner speech, often taken as evidence that thinking is inherently verbal, reveals a more complex picture. Inner speech is not simply external language turned inward. It is condensed, fragmented, and context-dependent. It relies on abbreviated syntax, implicit references, and rapid associative connections. It interacts continuously with non-verbal forms of thought, drawing on perceptual images and conceptual structures that exist outside language. In bilingual contexts, this interaction becomes even more evident. Thought can shift between linguistic systems or operate independently of them, demonstrating that language is a flexible tool rather than a fixed container of cognition. The limitations of language become particularly visible in its reliance on metaphor. Abstract thought is largely constructed through mappings from perceptual experience. Time is understood as space, emotion as temperature, causation as force, and existence as location. These metaphors are not decorative; they are foundational. They allow the mind to extend beyond immediate perception by reusing familiar structures. However, they also impose constraints. Each metaphor highlights certain aspects of a concept while obscuring others. The metaphor of time as a resource, for example, emphasizes scarcity and management but neglects other possible dimensions of temporal experience. As metaphors become conventional, they lose their visibility. What was once a creative mapping becomes an unquestioned framework. Language appears literal where it is in fact deeply metaphorical. This naturalization of metaphor contributes to the rigidity of conceptual systems. New experiences are forced into existing frameworks, and when the fit is imperfect, language adapts slowly. Words are stretched, meanings shift, and ambiguity increases. The system continues to function, but its precision diminishes.

This process is intensified by the variability of meaning across contexts. Words do not carry fixed definitions; they derive their meaning from use. The same term can evoke different interpretations depending on situation, culture, and individual experience. Categories can exist without names, and names can persist without clear categories. The absence of a word does not prevent the formation of a concept, just as the presence of a word does not guarantee understanding. Meaning emerges from the interaction between linguistic signs and the perceptual and cognitive structures they evoke. In social contexts, this instability becomes even more pronounced. Language is not only a tool for describing reality but also for shaping it. Words frame issues, organize perception, and align individuals within groups. In political and cultural discourse, the effectiveness of a term often depends on its emotional resonance and its ability to activate shared frameworks. This strategic use of language amplifies its distortions. Words are chosen not for accuracy but for impact, and meanings are reshaped to serve particular purposes. The result is a fragmentation of shared understanding. Different groups may use the same vocabulary while operating within distinct conceptual systems. Communication across these systems becomes increasingly difficult, as each side interprets terms through its own framework. Miscommunication is not merely a misunderstanding of words but a misalignment of underlying structures. Attempts to resolve these conflicts through more language often fail, because the problem lies not in the quantity of words but in the incompatibility of the systems they activate.

At the cognitive level, this fragmentation reflects the reconstructive nature of understanding. Communication does not transmit meaning intact; it triggers processes of reconstruction in the mind of the receiver. Each individual interprets incoming information based on prior knowledge, context, and expectation. The message that is received is not identical to the message that was sent. Understanding occurs when there is sufficient overlap between these reconstructions, but this overlap is never complete. Traditions and shared knowledge emerge from repeated cycles of reconstruction. Stability is achieved not through exact replication but through consistent reinterpretation within similar constraints. However, as contexts change, these constraints shift, and interpretations diverge. Language preserves continuity while allowing variation. Over time, the gap between words and their referents widens, contributing to the sense that language is becoming less precise or less reliable. This widening gap can be understood as a form of obsolescence. Words continue to circulate, but their meanings become increasingly detached from their original contexts. They accumulate layers of interpretation, some of which may conflict. The system remains functional, but its connection to perception and experience becomes less direct. Language turns inward, relying more on its own internal structures—definitions, conventions, and prior uses—than on external reference.

Despite this, language does not collapse. It adapts. New terms are created, old ones are repurposed, and meanings shift. Communication continues, not because language perfectly represents thought, but because human cognition is capable of navigating its imperfections. People infer, adjust, and reinterpret. Miscommunication is managed rather than eliminated. The recognition of these limitations does not diminish the importance of language but reframes it. Language is indispensable for coordinating thought, preserving knowledge, and enabling social interaction. However, it cannot be treated as a transparent medium. Its outputs must be understood as approximations, shaped by structural constraints and contextual factors. Cognition, in turn, must be understood as a process that extends beyond language. Thought is grounded in perception, shaped by experience, and mediated by multiple systems. Language interacts with these systems but does not encompass them. Recognition is not a simple act of identifying what is already there but an active process of aligning perception with conceptual structures that are themselves incomplete. What emerges from this analysis is not a pessimistic view of communication but a more precise one. Miscommunication is not an anomaly to be corrected but a condition to be navigated. The goal is not perfect understanding, which is unattainable, but a more informed awareness of how meaning is constructed, transformed, and constrained.

In this sense, the persistent gaps between thought and language are not merely limitations but also sources of creativity. Because language cannot fully capture perception, it must rely on approximation, metaphor, and interpretation. These processes generate new meanings, new connections, and new possibilities for thought. The same mechanisms that produce misunderstanding also enable innovation. The interplay between cognition and language is therefore both restrictive and generative. Language constrains thought by imposing structure, but it also expands it by providing tools for abstraction and communication. The tension between these roles cannot be resolved, because it is inherent to the system. The final insight is that understanding is always provisional. It emerges from the interaction between perceptual structures, cognitive processes, and linguistic forms, but it is never complete. Each act of communication bridges the gap between minds only partially, leaving room for reinterpretation and revision. What persists is

not certainty but process. Thought continues to exceed language, language continues to reshape thought, and communication continues to operate within the space between them. It is within this space—imperfect, shifting, and unavoidable—that human understanding is both limited and sustained.

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